# **CHEMOSPHERE**

# SUBJECT AND AUTHOR INDEX

Volume 28, 1994



## EDITOR-IN-CHIEF (and Editor of Chemistry and Biochemistry)

Professor O. Hutzinger

University of Bayreuth, Chair of Ecological Chemistry and Geochemistry, Postfach 10 12 51, D-95440 Bayreuth, Germany

Fax: XX 49 921 54626

ASSISTANT EDITOR: Alfreda Hutzinger

### **EXECUTIVE EDITOR**

Dr T. Stephen

8 Lewis Close, Risinghurst, Headington, Oxford OX3 8JD, U.K.

**PRODUCTION EDITOR: Paul Russell** 

Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.

#### **EDITORS**

#### CHEMISTRY AND BIOCHEMISTRY

Mr D. W. Kuehl

U.S. Environmental Protection Agency, Duluth, MN 55804,

Fax: XX 218 720 5539

#### **ECOTOXICOLOGY**

Professor Dr J. P. Giesy

Department of Fisheries and Wildlife, Michigan State University, MI 48824-1222, U.S.A.

Fax: XX 517 336 1699

Professor W. Klein

Fraunhofer-Institut für Umweltchemie und Ökotoxikologie, Grafschaft/Hochsauerland, D-57392 Schmallenberg, Germany Fax: XX 49 2972 30 2319

Dr M. Yasuno

National Institute for Environmental Studies, Japan Environment Agency, 16-2 Onogawa, Tsukuba, Ibaraki 305, Japan Fax: XX 298 51 4732

#### TOXICOLOGY, PHARMACOKINETICS AND EPIDEMIOLOGY Professor U. G. Ahlborg

Karolinska Institutet, Institute of Environmental Medicine, Unit of Toxicology, Box 210, S-171 77 Stockholm, Sweden Fax: XX 46 8 34 3849

Professor S. Safe

Veterinary Physiology and Pharmacology, Texas A and M University, College Station, TX 77843, U.S.A. Fax: XX 409 845 6544

Professor E. Takabatake

Setsunan University, Faculty of Pharmaceutical Sciences, 45-1 Nagaotoge-cho, Hirakata, Osaka 573-01, Japan Fax: XX 720 50 7020

#### ATMOSPHERIC CHEMISTRY AND GLOBAL CHANGE Dr M. A. K. Khalil

Global Change Research Center and Department of Environmental Science and Engineering, Oregon Graduate Institute of Science and Technology, 19600 N.W. Von Neumann Drive, Beaverton, OR 97006-1999, U.S.A.

Fax: XX 503 690 1016

#### **EDITORIAL BOARD**

#### CHEMISTRY AND BIOCHEMISTRY

J. Albaigés, CID-CSIC, Barcelona, Spain

K. Ballschmiter, Universität Ulm, Ulm, Germany

T. F. Bidleman, ARQP, Ontario, Canada

R. E. Clement, Ontario Ministry of the Environment, Rexdale, Canada

D. W. Connell, Griffith University, Brisbane, Australia H. Fiedler, University of Bayreuth, Bayreuth, Germany

W. Giger, Swiss Federal Institute of Technology, Dubendorf, Switzerland

H. P. Hagenmaier, University of Tübingen, Tübingen, Germany

F. Hileman, Monsanto BB4M, St Louis, MO, U.S.A.

R. A. Hites, Indiana University, Bloomington, IN, U.S.A.

P. M. Huang, University of Saskatchewan, Saskatoon, Canada

R. C. Lao, Environment Canada, Ottawa, Canada

D. Lenoir, GSF Institut für Ökologische Chemie, Neuherberg, Germany

D. Mackay, University of Toronto, Toronto, Canada

A. A. Moghissi, PO Box 7166, Alexandria, VA, U.S.A.

H. Parlar, Gesamthochschule Kassel-Universität, Kassel, Germany

C. Rappe, University of Umeå, Umeå, Sweden

A. Sabljić, Institute Rudjer Bošković, Zagreb, Croatia

H. R. Schulten, Fachhochschule Fresenius, Wiesbaden, Germany

P. R. Wallnöfer, Bayerische Landesanstalt für Ernährung, Munich, Germany

V. Zitko, Biological Station, St Andrews, Canada

#### **ECOTOXICOLOGY**

S. M. Bartell, Senes Oak Ridge Inc., Oak Ridge, TN, U.S.A.

G. C. Butler, 4694 West 13th Avenue, Vancouver, Canada D. Calamari, Università degli Studi di Milano, Milan, Italy

R. T. Digiulio, Duke University, Durham, NC, U.S.A.

W. Ernst, Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven, Germany

M. Goto, Gakushuin University, Tokyo, Japan

P. C. Kearney, National Resources Institute, Beltsville, MD, U.S.A.

S. J. Klaine, Memphis State University, Memphis, TN, U.S.A. P. F. Landrum, Great Lakes Environmental Research Labora-

tory, Ann Arbor, MI, U.S.A.

R. Nagel, Johanne Gutenberg-Universität Mainz, Mainz,

F. Schmidt-Bleek, OECD 2, Paris, France

A. Spacie, Purdue University, West Lafayette, IN, U.S.A.

R. Truhaut, Université de Paris, Paris, France

### TOXICOLOGY, PHARMACOKINETICS AND EPIDEMIOLOGY

R. Kociba, Dow Chemical Company, Midland, MI, U.S.A.

Y. Masuda, Daiichi College of Pharmaceutical Sciences, Fukuoka, Japan

W. Mücke, Technical University of Munich, Munich, Germany

H. Nakazawa, Institute of Public Health, Tokyo, Japan

Ch. Schlatter, University of Zurich, Schwerzenbach, Switzerland R. R. Suskind, University of Cincinnati, Cincinnati, OH, U.S.A.

#### ATMOSPHERIC CHEMISTRY AND GLOBAL CHANGE

V. P. Aneja, North Carolina State University, Raleigh, NC, U.S.A.

P. Brimblecombe, University of East Anglia, Norwich, U.K. C. I. Davidson, Carnegie Mellon University, Pittsburgh, PA, U.S.A.

R. Harriss, University of New Hampshire, Durham, NH, U.S.A. D. Kammen, The Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, Affairs, Princeton University, Princeton, NJ, U.S.A.

V. W. J. H. Kirchhoff, Instituto Nacional de Pesquisas Espaciais (INPE), São José dos Campos, S.P., Brazil

H. Papen, Fraunhofer Institute for Atmospheric Environmental Research, Garmisch-Partenkirchen, Germany

D. C. Parashar, National Physical Laboratory, New Delhi, India

S. A. Penkett, University of East Anglia, Norwich, U.K. R. A. Rasmussen, Oregon Graduate Institute, Beaverton, OR,

W. Seiler, Fraunhofer Institute for Atmospheric Environmental Research, Garmisch-Partenkirchen, Germany

J. W. Winchester, Florida State University, Tallahassee, FL, U.S.A.

# SUBJECT INDEX VOL. 28, 1994

A		
Abiotic transformation	PCDD/PCDF suspended	and humidity, effect on
water and soil	matter, sampling,	trifluralin
contaminants 323	analysis river Elbe	volatilization
Absorption,	63	from soil 491
Cd from water by	terbuthylazine and	Alachlor surface water
Dreissena polymorpha 737	atrazine in relation physico-chemical	release, fugacity model development, validation
sulfur dioxide into	properties in 3 soils	511
quiescent water with	467	Algebraic/graphical tool
interfacial resistance		comparison pollution
film model 1217	environment,	ecosystems 863, 873
Accumulation	biodegradation water	Alifatic fuel
heavy metals:	insoluble polymers 1757	incineration pilot study,
gills of Anodonta		effect organic, inorganic
piscinalis, effect	indoor/outdoor	chlorine on PCDD/PCDF
of body weight, sex	relationship inorganic	formation 2129
and glochidia	components coarse and	Alkylbenzenes
occurrence 1539	fine particles, Taiwan	linear, zooplankton gulf
incinerator slags	1477	of Trieste 1119
effect of	inhalable mixed-phase,	Anaerobic conditions
combustion bed	sampler modification,	microbial activity,
temp 349	test with 3 pesicides	dechlorination
Adipose tissue	1135	1,2,4-trichloro-
human and breast milk,	Agriculture	benzene, sediment Ise
presence of nitro	nitrous oxide emission	bay 2179
musks 421	model, soil, Florida	sediment, slurries
rat, selective retention	1401	bromoethanesulfonate
hexachloronaphthalenes	plant uptake pathways of	and heat treated,
and appearance in	organic compds from	microbial reductive
wildlife 2075	soil 297	dechlorination PCBs
Adsorbents trapping	Air	2269
efficiency, airborne	OH radicals,	Anodonta piscinalis body
pesticides, sampler	concentration	weight, sex and
modification and test	environmental chambers	glochidia, influence on
1135	using electron spin	heavy metal accumulation
Adsorption	resonance 999	in gills 1539
Cu by montmorillonite,	sampler, modification,	Antifeedant
effect of glyphosate,	pesticides test	1-(2,4,6-trimethoxy-
study by anodic	trapping efficiency	phenyl) but $-2(E)$ -en-1-one,
stripping voltammetry	semi-urban, GC-MSD detn	brief synthesis 1791
2185	biogenic hydrocarbons	AOX background levels
desorption, hydrocarbons,	837	sediments gulf of Finland
clay minerals 627	velocity, temp	99

Apodemus flavicollius hepatic cytochrome p-450 Arsenic enzyme system as indicator in biomonitoring pollution, 1525

Aquatic environment aerobic, anaerobic, biodegradation water insoluble polymers 1757

Elbe, suspended matter, PCDD/PCDF, sampling, analysis 63

freshwater, UK, butyltin concentrations effect 1987 ban TBT based antifouling paints 905

gulf of Finland sediments, background levels EOX/AOX 99

lake Ontario, TCDD/hydrophobic organic compds, biota-to-sediment ratio 75

microcosm, experimental approach 501

natural water, nonylphenol, nonylphenol polyethoxylates, photodegradation 1361

porewater, elutriates from dosed sediment, partition coeffs hydrophobic contaminants, comparison of methods 583

paritioning hydrophobic organic compds 145 photodegradation

quinoline in water 1097

St Lawrence, tributaries, PCB concentration, temporal variations 947

water quality indicated by marine bacteria 1165

Aquatic systems

inclusion effects of cyclodextrins on photodegradation rates, parathion and paraoxon 1961

St Lawrence river, fate and distribution, chlorophenols 1943 S.Alberta, geochemistry of Hg 1871

effect on bacterial degradation of pentachlorophenol, 559

methylation by Polyphsa peniculus presence of L-methionine-methyl-D<sub>3</sub> 1009

Ataxonomic approach to assess plankton system stability 357

Atmosphere

indoor/outdoor relationship, inorganic components coarse and fine particles, Taiwan 1477

modelling formation and decay NPAH 1623

Pb behaviour, effect of reduced Pb fuel consumption 139

Atrazine

behaviour prim, sec wastewater treatment 1611

mineralization, VUV photolysis water, 2121

seasonal dynamics, 3 soils outdoor conditions 453

terbuthylazine, sorption in relation physico-chemical properties in 3 soils 467

Autoantiboby increased binding erythrocytes treated with cigarette smoke extract 2285 Azo dyes solid system, sensitized photocatalysis, feasibility study 1021

B Bacteria see also Microorganisms degradation of pentachlorophenol, effect of As 559 marine, indicators of water quality 1165 PCB degrading, growth on

compds from photosynthetic plants 981

sewage growth inhibition test, assessing bacterial toxicity of chemicals 755

Benzaldehydes

3, 4-dihydroxy, 3,4-dihydroxy-5-methoxy, 3,4,5-trihydroxy and 5-hydroxyvanillins, degradation lignin, humic substances 1641 Benzene, short time exposure in garages 197 2,3-Benzofluoranthene ionic pathways 1733 Bifenox surface runoff, rainfall simulation field plots 649 Bilirubin UDP-glucuronyltransferase induction and CYP4A1 P450 by coplanar PCBs, guinea, rat different responsiveness 639 Bioaccumulation chlorobenzene phytoplankton, temp

dependency 2041 PCDD/PCDF mixtures by

fish, effect of sediment 1433 TCDDs, hydrophobic

organic compds lake Ontario 75

Bioassays

acroinvertebrate multi test, toxicity complex effluents, aquatic environment 2249

derived P4501A1 induction activity correlation chemical analysis Laternula elliptica extracts, Antarctica 2237

in vitro microbial, sediment extracts, detect and quantify contaminants with similar action 169

sediment contaminants, effect of feeding Chironomus riparius larvae 597

Bioconcentration super-lipophilic organic chemicals 357

Biodegradation see also Degradation carbon dioxide recovery

in Sturm test 801 CEC L-33-T-82 test data, interpretation 787

synthetic lubricant base stock, investigation 813

ultimate, testing for surfactants 1503

water insoluble polymers, aerobic, anaerobic aquatic environment 1757 Biofuel combustion emission chlorinated dioxins, PCBs, chlorobenzenes 1895 **Bioindicators** abiotic desposition, comparison based on indigo paper, effect ozone monitoring, Munich traffic 1905 fish, PCB environmental contamination 1913 Biological activity subacid soil, effect simulated acid rain, 1087 Biomarkers in ecotoxicoloy 357 Biomonitoring Dreissena polymorpha for environmental pollutants 729 pollution, hepatic cytochrome p-450 enzyme system in Apodemus flavicollius as indicator 1525 Bioremediation enhanced degradation 3 herbicide mixture in rhizosphere of herbicide tolerant plant 1551 microbial respiration quotient as indicator 477 Biota-to-sediment ratio TCDDs, hydrophobic organic compds lake Ontario 75 Biotic transformation water and soil contaminants 323 Bis-2-ethylhexyl phthalate photodecomposition 1489 Bis([2,4]dichlorobenzoyl ) peroxide silicone rubber, PCB formation 2197 Bleaching plant, are chlorinated phenols precursors of dioxins, furams 1883 pulp effluent: analysis bile of

Perca fluviatilis

chlorinated compds

for chloro-

881

phenolics 1701

chemical stability,

chlorinated- and alkyl-fluorenes, 2139 high mol wt chlorolignin sorption on sediment 1773 mutagenicity and toxicity assessment 1859 prep chloro-syringols and -pyrogallols 921 prep and prop chloro-3-methoxycatechol components 911 Blood live Miirounga angustirostris, detn environmental contaminants microscale samples 1795 plasma, human milk, PCB and dioxin levels Dutch women and infants 1721 sampling, monitoring PCB/DDT levels in seals 3 Blubber live Miirounga angustirostris, detn environmental contaminants microscale samples 1795 Brominated compds flame retardants detection in styrofoam 1211 Bromine biogenic volatile organo compds from polar macroalgae 1315 role in <u>de novo</u> synthesis, model fly ash system 1299 Bromoethanesulfonate heat treated anaerobic sediment slurries, microbial reductive dechlorination PCBs 2269 BUA sulfonic acids, SARs ecotoxicity, toxicity 2203 Butyltin concentrations, UK, effect 1987 ban on TBT based antifouling paints 905

C
Cadmium
absorption from water
by <u>Dreissena</u>
<u>polymorpha</u> 737
release, Cu uptake in
CdS suspension
photooxidation under

several environmental conditions 663 Carbon dioxide recovery in Sturm test for biodegradability 801 Carbosphere activated carbon, use analysis PCDD/PCDF/planar PCB in milk 693 Catechols chloro-3-methoxy deriv, pulp bleaching effuents, prep, prop 911 CBs bioaccumulation phytoplankton, temp dependency 2041 calculation physical properties 1675 content UK sewage sludges 1201 detn sorption coeffs, experimental problems 931 emission biofuel combustion 1895 fate, behaviour, soil/plant systems by sewage sludge application 1325 formation fly ash catalysed reactions of trichloroethylene 1977 CDDs DDs, effect on 7-ethoxycoumarin O-deethylase activity rat liver microsomes 1589 CEC L-33-T-82 biodegradation test data, interpretation 787 Chemicals organic, sorption Qsars soil, sediments 1171 toxicity to bacteria, growth inhibition test with sewage bacteria 755 Chironomus riparius, larvae feeding, effect on sediment contaminant bioassays, 597 QSARs base-line

on sediment
contaminant
bioassays, 597
QSARs base-line
toxicity 989
Chlorinated compds
alkanes, structuretoxicity
correlation, 253
fluorenes and
alkylfluorenes in
bleached Kraft pulp
and pulp mill
discharges 2139

PCB in milk, use of

hydrocarbons: in environemntal samples, German specimen bank 313 formation water chlorination 229 incineration toxic combustion products 183 phenols, formation fly ash catalysed reactions of trichloroethylene 1977 pulp bleaching liquors, chemical stability Chlorination aqueous, reaction pathways formation 3chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone 1111 water with NaOCl, products of benzene, phenol, phenylalanine 229 Chlorine organic, inorganic, effect on formation PCDD/PCDF, incineration pilot study 2129 Chloro-3-methoxycatechol s pulp bleaching effuents, prep, prop, 911 Chloroacetic acid effect pH on chemical stability pulp bleaching liquors 881 Chloroanilines 2,3,4,5-, 2,3,5,6-, 1,2,3,5-, bioconcentration kinetics, Poecilia reticulata 159 Chlorobenzenes see CBs Chlorobornanes as standard, use in quatification toxaphene residues in marine organisms 237 structure and calculation of toxaphene components in toxaphene mixture 245 x-ray analysis, structures toxaphene congeners 2067 Chlorocatechols measurement, analytical procedure 1701 Chlorofluorocarbons loaded polyurethane

foams, co-combustion

incineration plants 1455 GC-MS, PCDD/PCDF/planar

Chloroguaiacols effect pH on chemical stability pulp bleaching liquors 881 Chlorolignin high mol wt, sorption on sediment 1773 Chloromethanes photodegradation, 1289 Chlorophenols bleach Kraft mill effluent, analysis bile of <u>Perca</u> fluviatilis 1701 distribution, fate St Lawrence river basin 1943 effect pH on chemical stability pulp bleaching liquors 881 enzymatic mediated incorporation into humic acids 703 formation: fly ash catalysed reactions of trichloroethylene 1977 incineration alifatic fuel, effect organic inorganic chlorine 2129 photodecomposition promoted by ferric ion 57 QSAR, toxicity to copepodid of Tisbe battagliai, Platichthys flesus and Solea solea 825 Chloropyrogallols pulp bleaching effluents, prep 921 Chlorosyringols chloropyrogallols, prep 921 pulp bleaching effluents, prep 921 Chlorovanillins effect pH on chemical stability pulp bleaching liquors 881 Chromatography fluoresence, hydrophobic organic matter production Phaeodactylum tricornutum 117 gas, soil levels tetrato hexachloronon-ortho coplanar PCBs 47

carbosphere activated carbon 693 GC-MSD detn biogenic hydrocarbons, detn in semi-urban air 837 HG-GC-MS, Polyphsa peniculus arsenic methylation presence L-methioninemethyl-D<sub>3</sub> 1009 HRGC, selective separation enatiomers toxaphene congeners 89 HRGC-ECD and HRGC-NICI SIM, quatification toxaphene residues in marine organisms, environmentally relevant chlorobornanes as standard 237 HRGC/HRMS: chlorinated- and alkyl-fluorenes in bleached Kraft mill pulp discharges 2139 pulp mill product discharges, alkylchloronaphthlenes, alkylchlorophenanthrenes, chloro phenanthrenes 1261 liquid, separation degradation products lignin and humic substances 1641 prototype smetic liquid-crystalline polysiloxane stationary phase capillary column, separation PCBs, PAHs 2087 sec-HPLC, gulf of Finland sediments, background levels EOX/AOX 99 Chromium Swiss chard grown on soil with tannery meal fertiliser 717 Cigarette smoke extract treated erythrocytes, increased autoantiboby binding 2285 Clay minerals, adsorption/desorption hydrocarbons 627 Climate effect conditions on trifluralin

volatilization from soil molluscicide 491 Cloud condensation nuclei, dimethyl sulfide in atmosphere, field measurement NW Scotland 543 Coal power plants, PCDD/PCDF in waste water from flue gas scrubbers 2173 stack ash surfaces, effect of sonification on PAHs recovery 1741 Combustion bed temp, effect on concentration, leachability, metals in incinerator slags 349 biofuel, emission chlorinated dioxins, PCBs, chlorobenzenes 1895 mixed plastics with coal, formation PCDD/PCDF, exploratory principal component analysis 1989 plants, PCDD/PCDF in waste water from flue gas scrubbers coal power plants 2173 waste, PCDD/PCDF emission UK 2101 Composting formation PCDD/PCDF 155 Conformation polyhalogenated diphenyl ethers 1069 Contaminants environmental, in living marine mammals, detn microscale samples blubber, blood 1795 monitoring, application luminescence, review 1819 Contamination see also Pollution accidental by Cu, assessment using Rhynchostegium riparioides 2001 conifer needles gas phase, distribution semivolatile compds 1689 Controlled release with

improved environmental

acceptance of

formulations 305 Copper accidental pollution, assessment using Rhynchostegium riparioides 2001 adsorption by montmorillonite, effect of glyphosate, study by anodic stripping voltammetry 2185 uptake, Cd release in CdS suspension, photooxidation under several environmental conditions 663 Corrigenda Hainzl L. Xu. D., Burhenne J. and Parlar H.: vol 28, 237 (1994): Table 1, peaks No 26 and 32 should be exchanged 2294 Kotsyurbenko O.R., Nozhevnikova A.N., Zavarzin G.A. 27, 1745 (1993): last sentence of p 1758 corrected i Vourlitis G.L., Oechel W.C., Hastings S.J. and Jenkins M.A.: 'The effect of soil moisture and thaw depth on methane flux from wet coastal tunfra ecosystems on the north slope of Alaska' 2291 Cosmetics nitro musks in human adipose tissue and breast milk 421 Cyanuric acid atrazine mineralization, VUV photolysis water 2121 Cyclodextrins inclusion effects on photodegradation rates, parathion and paraoxon, aquatic systems 1961 CYP2B dependent PROD activity, interactions TCDDs and PCBs, preand postnatal exposure liver neonatal rats 1581 CYP4A P450 and bilirubin UDP-glucuronyltransferas e induction by by coplanar PCBs, rat guinea pig different responsiveness 639 CYPIA dependent EROD

activity, interactions TCDDs and PCBs, preand postnatal exposure liver neonatal rats, 1581 Cytochrome p-450 hepatic enzyme system in Apodemus flavicollius as indicator in biomonitoring pollution, 1525 Cytotoxicity lipophilic solvents emulsified by ultrasound to cultured fish cells and fish lethality data, good correlation 1495 Daphnia magna lactate dehydrogenase acivity, 21 day toxicity test comparing 3,4-dichloro-aniline and NaBr 2021 PAH lethality, QDARs for photoinduced toxicity 567 DCC simple prep 131 DDTs electrolytic dechlorination in bicontinuous microemulsion 961 levels in seals, monitoring by blood sampling 3 long term trends, mussels W Meditteranean coast 897 Deamarestia aculeata polar, biogenic volatile iodine and bromine organo compds 1315 Decabrombiphenyl ether in polymeric matrices, incineration, effect of water and metals on PCDD/PCDF concentration 1921 Dechlorination 1,2,4-trichloro-benzene, sediment Ise bay 2179 electrolytic DDTs in bicontinuous microemulsion 961 microbial reductive, PCBs, heat and bromoethanesulfonate treated anaerobic sediment slurries 2269 Decomposition photo,

Drains water, leached

soil 273

herbicides, loamy silt

bis-2-ethylhexyl phthalate 1489 Degradation see also Biodegradation 3,3',4,4'-tetrachlorobiphenyl by selected white rot fungi 1127 azo dyes in solid system, sensitized photocatalysis, feasibility study 1021 CBs fate behaviour of CBs in soil/plant systems 1325 chloromethanes 1289 electrolytic dechlorination DDTs by bicontinuous microemulsion 961 mixture of 3 herbicides enhanced in rhizosphere herbicide tolerant plant 1551 pentachloro-phenol by bacteria, effect of As 559 photo, nonylphenol and nonylphenol polyethoxylates in natural waters 1361 photocatalysed transformation of nitrobenzene on TiO2 and ZnO 1229 photooxidation aqueous soln metalaxyl, hydrogen peroxide and titanium dioxide presence 341 Deinking recycling paper mill, mass balance PCDD/PCDF 1633 Deposition abiotic and bioindicators, comparison based on indigo paper effect ozone monitoring, Munich traffic 1905 DEs polyhalogenated, NMR spectroscopy and conformation 1069 Desethylatrazinw behaviour prim, sec wastewater treatment 1611 Desisopropylatrazine behaviour prim, sec wastewater treatment 1611 Desorption terbuthylazine and atrazine in relation physico-chemical

properties in 3 soils

467 Detergents nitro musks in human adipose tissue and breast milk 421 OECD screening test compared with harmonized OECD/EC methods 1503 Dibenzothiophenes polychlorinated produced in metal reclamation 1279 3,4-Dichloroaniline NaBr toxicity compared, 21 day test using lactate dehydrogenase acivity in Daphnia magna 2021 Dichlorocatechols see DCC Dichlorprop-p surface runoff, rainfall simulation field plots 649 Diet see also Food 1,3,6,8-TCDD, effect on Oryzias latiupes, Indoplanorbis exustus 1369 Dimethyl sulfide metabolism marine phytoplankton, tropospheric reactions, field measurement NW Scotland 543 Dioxins bleach plant, are chlorinated phenols precursors 1883 chlorinated, emission biofuel combustion 1895 levels, plasma, human milk, Dutch women and infants 1721 toxic sulfur analogs from metal reclamation 1279 Diphenyl ethers see DEs Diphenylsulfides polychlorinated produced in metal reclamation 1279 Disequilibria natural systems, review understanding redox capacity 613 Dissolved organic matter effect on terbuthylazine transport in soil 533 Dolphins US Atlantic, coplanar PCBs and metal

residues 1245

Dreissena polymorpha biomonitoring Sr' contamination zebra mussels 729 Cd absorption from water 737 Drinking water 3-chloro-4-(dichlorometh yl)-5-hydroxy-2(5H)-fura none, formation reaction pathways 1111 E Earthworms assessment of ecological impact of soil xenobiotics 413 ECOD activity, effect of CDDs, DDs, rat liver microsomes 1589 Ecology German specimen bank of chlorinated hydrocarbons in environemntal samples 313 impact of xenobiotics, assessment by soil earthworms 413 techniques, evaluation of xenobiotic effects 357 **Ecosystems** algebraic/graphical comparison tool, pollution river Elbe, Hasse diagrams, 863 873 Ecotoxicity toxicity sulfonic acids, SARs, BUA compilation 2203 **Effluents** pulp mill: alkylchloronaphthalenes, chlorophenanthrenes, alkylchlorophenanthrenes 1261 identification and level chlorinated neutral aromatic sulfur compds and alkylated derivs, 2049 Electrostatic precipitator time-scale analysis, PCDD/PCDF formationincinerator fly ash 23 Elutriates from dosed sediment, partition coeffs hydrophobic contaminants, comparison

of methods 583 Enantiomers toxaphene congeners, selective separation, synthesis and isolation seal blubber 89 Energy-from-waste combustion, PCDD/PCDF emission UK 2101 Environment chemicals, evaluation physical property relationships 1657 coastal, marine bacteria, indicators of water quality 1165 contamination: dimethyl sulfide in atmosphere field measurement NW Scotland 543 hexachloronaphthalenes, selective retention rat liver and appearance wildlife 2075 in living marine mammals, detn microscale samples blubber, blood, 1795 impact assessment, equilibrium fugacity calculations, worst case approach 2151 monitoring, application luminescence, review 1819 potential of starch encapsulated herbicides 1035 pollutants, Dreissena polymorpha for biomonitoring 729 samples, fatty acid

lipopolysaccharides
391

Enzymatic reactions
incorporation 2- and
4-chlorophenol into
humic acids 703
induction, bilirubin
UDP-glucuronyltransferase and
CYP4A1 P450 by
coplanar PCBs,
rat, guinea pig
different responsiveness 639

phospholipids and

patterns

EOX background levels sediments gulf of Finland 99 Erythrocytes treated with cigarette smoke extract, increased autoantiboby binding to erythrocytes 2285 Escherichia coli solar inactivation in water using titanium dioxide catalyst 607 Ethoxycoumarin O-deethylase see ECOD Exchange reaction dissolved Cu and CdS, effect photoirradiation 663 Exhaust pollutants photooxidation 1289 Exposure benzene, gasoline short time exposure in garages 197 Extraction semivolatile compds gas phase contamination conifer needles 1689

Fatty acids patterns of phospholipids and lipopolysaccharides in environmental samples 391 Ferrous sulfide reaction kinetics with heavy metals 1147 Fertilisers tannery meal in soil, Cr in Swiss chard 717 Ficus distichus polar, biogenic volatile iodine and bromine organo compds 1315 Fish bioaccumulation PCDD/PCDF mixtures, effect of sediment 1433 effect of dietary 1,3,6,8-TCDD 1369 lethality data and cytotoxicity to cultured fish cells, correlation between of lipophilic solvents emulsified by ultrasound 1495 Necker river, indentification Di-0-0'-Cl-, mono-O-Cl- and non-O-

Cl-substit PCB

congeners 1913

tissues, quatification

toxaphene residues

Furam

using environmentally relevant chlorobornanes as standard 237 toxicity glyphosate 745 Flame retardants brominated, detection in styrofoam 1211 Fluorescent compds hydrophobic organic matter production Phaeodactylum tricornutum 117 Fly ash catalysed reactions of trichloroethylene, formation chlorinated benzenes, phenols, 1977 dioxin/furan formation, time-scale analysis, incinerators 23 model system, role of Br in <u>de novo</u> synthesis 1299 Food see also Diet Chironomus riparius larvae, effect on sediment contaminant bioassays 597 TCDD/TCDF/planar PCB exposure by Dutch Turks, revelance of mutton 675 Fuel reduced Pb, effect on atmospheric Pb behaviour 139 Fugacity equilibrium calculations, worst case appraoch, environment impact assessment 2151 model, pesticide runoff
 to surface water, development, validation 511 Fungi subacid soil, effect of simulated acid rain 1087 white rot, 3,3',4,4'-tetrachlorobiphenyl degradation 1127 Fungicides photooxidation aqueous soln metalaxyl, hydrogen peroxide and titanium dioxide presence 341 precipitation in N. Germany 1559

bleach plant, are
chlorinated phenols
precursors 1883
toxic sulfur analogs
from metal
reclamation 1279
2(5H)-Furanone
3-chloro-4-(dichlorometh
yl)-5-hydroxy-deriv,
formation reaction
pathways 1111

Gammaruus pulex precopula disruption after brief exposure to lindane 2011 Gasoline reduced Pb, effect on atmospheric Pb behaviour 139 short time exposure in garages 197 Genotoxicity cytotoxicity, 3-amino-1-methyl-5H-pyri do-4,3-d]indole 853 Geochemistry Hg in watersheds S.Alberta 1871 Glyphosate effect on Cu adsorption by montmorillonite, study by anodic stripping voltammetry 2185 toxicity to fish 745 Graphic display multivariate analysis comparison ecotoxicological and physico-chemical data 2249 Grass silage juice, heavy metal removal from polluted soil 383 Groundwater effect of DOM on terbuthylazine transport in soil, 533 isazofos migration irrigated turfgrass soil 721 Growth

terbuthylazine
transport in soil,
533
isazofos migration
irrigated turfgrass
soil 721
Growth
inhibition test, sewage
bacteria, assessing
bacterial toxicity of
chemicals 755
PCB-degrading bacteria
on compds from
photosynthetic
plants 981
Gypsum combustion
plants, flue gas
washing, PCDD/PCDF in

wastewater 2173 Halichoerus grypus enatiomers toxaphene congeners, selective separation 89 PCB/DDT levels, monitoring by blood sampling 3 Halogens organic, total leachable amounts in soil 1467 Halophytes trace metals, occurrence, distribution 1189 Hasse diagrams algebraic/graphical comparison tool, pollution ecosystems 863, 873 Hazard assessment adsorption/desorption hydrocarbons clay minerals 627 EIA, equilibrium fugacity calculations, worst case appraoch 2151 stardarized water for toxic substances in soil 219 TCDD/TCDF/planar PCB exposure from food by Dutch Turks, revelance of mutton, 675 toxicity, experimental approach aquatic microcosm systems, 501 xenobiotics evaluated by

microcosm systems,
501
xenobiotics evaluated by
ecotoxicological
standard tests 357
HCBs long term trends,
mussels W meditteranean
coast 897
Health risk
human, PCDD/PCDF

contaminated fish
Canada 1079
marine bacteria,
indicators of water
quality 1165
Herbicides

Herbicides
glyphosate toxicity to
fish 745
losses into subsurface
drains on loamy silt
soil 273
mixture of 3, enhanced
degradation in
rhizosphere herbicide
tolerant plant 1551
mobility on non-cultivated soil 285

precipitation in N.Germany 1559 s-triazine, behaviour prim sec wastewater treatment 1611 sorption terbuthylazine and atrazine in relation physicochemical properties, 3 soils 467 starch encapsulated, controlled release, environmental contamination potential 1035 surface runoff, rainfall
 simulation, field plots 649 trifluralin volatilization from soil, effect of air velocity, temp and humidity, 491 Hexachloronaphthalenes 1,2,3,5,6,7- and 1,2,3,4,6,7-isomers, liver and appearance

selective retention rat liver and appearance wildlife 2075 Humic substances acids, enzyme-mediated incorporation 2- and 4-chlorophenol 703 effect on hydrolysis organic pollutants

1749 Hydrocarbons adsorption/desorption clay minerals 627 aliphatic, zooplankton gulf of Trieste 1119 biogenic, detn in semi-urban air by GC-MSD 837 petroleum, aromatic and polynuclear, indicators, soil contamination by crude oil 1599 Hydrolysis organic pollutants, effect temp, pH, ionic strength and humic substances 1749

Hydrophobic compds
contaminants, partition
coeffs, natural
water, porewater,
elutriates from dosed
sediment, comparison
of methods 583
fluorescent organic

matter production
Phaeodactylum
tricornutum
117

organic, lake Ontario, biota-to-sediment ratio 75

Hydroxyl radicals

concentration
 environmental
 chambers using
 electron spin
 resonance 999

initiated oxidation
 perchloroethylene and
 trichloroethylene,
 product study 2029

sunlight irradiated
 water with titanium
 oxide catalyst,
 Escherichia coli
 disinfection 607

## Incineration

alifatic fuel, formation PCDD/PCDF, effect of organic, inorganic chlorine 2129

co-combustion mixed plastics with coal, formation PCDD/PCDF, exploratory principal component analysis 1989

flue PCDD/PCDF, removal efficiency by water spray into gas flow 1417

fly ash, dioxin/furan
 formation, time-scale
 analysis 23

plants, co-combustion CFC containing polyurethane foams 1455

plastics, chlorinated hydrocarbons, toxic combustion products 183

slags, effect of combustion bed temp on metals concentration and leachability 349

waste, coal power plants, PCDD/PCDF in wastewater from flue gas scrubbers, 2173

gas scrubbers, 21/3
Inclusion effects
cyclodextrins on
photodegradation rates,
parathion and paraoxon,
aquatic systems 1961
Indigo paper abiotic
desposition and
bioindicators
comparison, effect of
ozone monitoring, Munich
traffic 1905

Indoplanorbis exustus effect of dietary

1,3,6,8-TCDD 1369
molluscicide
formulations,
controlled release
with improved
environmental
acceptance 305

Industry fate and distribution chlorophenols, St Lawrence river 1943

Inhalable pesticides sampler modification and test trapping efficiency of adsorbents 1135

Insecticides

precipitation in

N.Germany 1559

release electric

vaporizer, indoor

simulation by

fugacity model 767

simulation indoor behavior by electric vaporizer 435 toxaphene mixture,

structure of chlorinated bornanes and calculation of toxaphene components 245

Todine biogenic volatile
organo compds from polar
macroalgae 1315
Tons

profiles, indoor/outdoor relationship inorganic components coarse and fine particles,

Taiwan 1477
strength, effect on
hydrolysis organic

pollutants 1749

Iron kinetics ferric ion promoted photodecomposition 2-chlorophenol

Isazofos migration irrigated turfgrass soil 721

Isoproturon surface
runoff, rainfall
simulation field plots
649

#### K Kinetics

ferric ion promoted photodecomposition 2-chlorophenol 57 heavy metal reaction with ferrous sulfide, 1147

L
Lactate dehydrogenase
acivity in Daphnia
magna, 21 day toxicity
test comparing
3,4-dichloroaniline and
NaBr 2021
Laminaria saccharina

polar, biogenic volatile iodine and bromine organo compds 1315

Landfills disposal sites for chlorophenolic wood preservative wastes, PCDD/PCDF concentrations 971

Laternula elliptica extracts, exposed rat hepatoma cells, P4501A1 induction bioassays correlation chemical analysis, Antarctica 2237

Leaching

atrazine, seasonal dynamics in 3 soils, outdoor conditions 453

CBs fate behaviour of CBs in soil/plant systems 1325

heavy metals in incinerator slags effect of combustion bed temp 349

Lead atmospheric behaviour, effect of reduced Pb fuel consumption 139 Lignin humic substances, degradation products, separation 1641

Lindane

brief exposure <u>Gammaruus</u>
<u>pulex</u>, resulting in
precopula disruption,
2011

long term trends,
 mussels W
 Meditteranean coast
897

Linuron surface water release, fugacity model development, validation 511
Liver rat microsomes, effect of CDDs, DDs on ECOD activity 1589
Lubricants

Lubricants
interpretation CEC
L-33-T-82
biodegradation test
data 787

synthetic base stock, biodegradation investigation 813 Luminescence monitoring environmental contaminants, review, 1819

M Macroalgae polar, biogenic volatile iodine and bromine organo compds 1315 Macroinvertebrate multi test toxicity complex effluents, aquatic environment 2249 Mass spectrometry DCC isomers 131 HRGC/HRMS pulp mill products, discharges, alkylchloro naphthalenes, chlorophenanthrenes and alkyl derivs 1261 soil levels tetra- to hexachloro- non-ortho coplanar PCBs 47 Mechanism reaction pathways formation 3-chloro-4-(dichlorometh y1)-5-hydroxy-2(5H)furanone 1111 Mercury geochemistry, in watersheds S.Alberta 1871 Metabolites DCC, simple prep 131 Metalaxyl photooxidation aqueous soln, hydrogen peroxide and titanium dioxide presence 341 Metals effect on PCDD/PCDF concentration, incineration decabrombiphenyl ether in polymeric

matrices 1921 heavy: accumulation in gills of <u>Anodonta</u> piscinalis, influence of size and glochidia bearing 1539 concentration, leachability in incinerator slags, effect of combustion bed temp 349 fate, land treatment system, irrigated with municipal

wastewater 375 reaction kinetics with ferrous sulfide 1147 removal from polluted soil with grass silage juice 383 removal motor oil, partitioning into water 1385 reclamation, sulfur analogs of toxic dioxins and furans produced 1279 residues, in dolphins US Atlantic, 1245 sewage sludge, cities USA 725 trace, occurrence, distribution in halophytes 1189 L-Methionine-methyl-D3 Polyphsa peniculus, arsenic methylation 1009 Methylation arsenate by Polyphsa peniculus presence of Lmethionine- methyl-D<sub>3</sub> 1009 Microcosm systems aquatic, experimental approach 501 Microemulsion bicontinuous, electrolytic dechlorination DDTs 961 1967 Microorganisms see also Bacteria community structures,

photodegradation PMSF

fatty acid patterns phospholipids, lipopolysaccharides in environmental samples 391

in vitro assays sediment extracts, detect and quantify contaminants with similar action 169

plant rhizosphere, degradation of pesticide wastes, 1551

reductive dechlorination PCBs; heat and bromoethanesulfonate treated anaerobic sediment slurries 2269

respiration quotient as indicator of bioremediation 477 subacid soil, effect

simulated acid rain 1087

Migration isazofos irrigated turfgrass soil 721

Miirounga angustirostris live, detn contaminants microscale samples blubber, blood 1795 Milk. human:

PCB and dioxin levels Dutch women and infants 1721 presence of nitro musks 421

Mineralization atrazine, VUV photolysis water 2121

Models

film, sulfur dioxide absorption into quiescent water with interfacial resistance 1217

fly ash system, role of Br in <u>de novo</u> synthesis 1299

formation and decay NPAH in atmosphere NPAH fugacity, insecticide release electric vaporizer, indoor safety assessment 767

nitrous oxide emission agricultural soil, Florida 1401 pharmacokinetic,

PCDD/PCDF in cows 711

Molluscicides controlled release with improved environmental acceptance 305

Mollusks

PCBs, DDTs, HCB, lindane, long term trends, W Meditteranean coast 897

Sr90 contamination, Dreissena polymorpha for biomonitoring, 729

Montmorillonite Cu adsorption effect, of glyphosate, study by anodic stripping voltammetry 2185 Motor oil components, partitioning into water 1385

Multivariate analysis graphic display, comparison

ecotoxicological and physico-chemical data 2249 Musks nitro, in human adipose tissue and breast milk 421 Mutagenicity 3-amino-1-methyl-5H-pyrido[[4,3]-d]indole 853 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone, formation reaction pathways 1111 assessment, pulp mill effluent 1859 contaminated sediment extracts, microbial assays 169

Naphthalenes alkylchloro derivs, in pulp mill products and discharges 1261 α-Naphthol sorption organic sorbents varying in polarity and aromaticity 145 Natural waters nonylphenol, nonylphenol polyethoxylates, photodegradation 1361 Nematocides isazofos migration irrigated turfgrass soil 721 Nitrobenzene photocatalysed transformation on TiO, and ZnO 1229 Nitrogen soil, applied as urea 15N, loss by volatilization, denitrification rather than leaching 333 Nitropolycyclic hydrocarbons in atmosphere, modelling formation and decay 1623 Nitrous oxide emission model, agricultural soil, Florida 1401 NMR 1H, 13C NMR and conformation polyhalogenated diphenyl ethers 1069 DCC isomers 131 photodegradation PMSF in microemulsions 1967 Nonylphenol nonylphenol polyethoxylates, photodegradation in

natural waters 1361

OECD screening test for detergents compared with harmonized OECD/EC methods 1503 Oil products, interpretation CEC L-33-T-82 biodegradation test data 787 Organic compds evaluation physical properties environmental relationships 1657 Organohalogen compds decomposition incineration plants, co-combustion CFC containing polyurethane foams 1455 total leachable amounts in soil 1467 Oryzias latiupes effect of dietary 1,3,6,8-TCDD 1369 Oxidation see also Photooxidation perchloroethylene and trichloroethylene OH radical initiated, product study 2029 phenol coupling by horseradish peroxidase 1807 processes, wastewater treatment, comparison UV-0[UU]2, UV-H<sub>2</sub>O<sub>2</sub>, UV-TiO<sub>2</sub> and photo-Fenton reaction 1447 Ozone monitoring, effect on abiotic desposition and bioindicators comparison, based on indigo paper, Munich traffic 1905

P4501A1 induction bioassays correlation chemical analysis rat hepatoma cells exposed to Laternula elliptica extracts, Antarctica 2237 PAHs contaminated sediment extracts, microbial assays 169 EIA, equilibrium fugacity calulations, worst case approach 2151 extraction from soil samples 683

lethality to Daphnia magna, QSARs for photoinduced toxicity 567 motor oil, partitioning into water 1385 nitro-, in atmosphere, modelling formation and decay 1623 recovery from coal stack ash surfaces, effect of sonification 1741 separation, prototype smetic liquid-crystalline polysiloxane stationary phase capillary column 2087 Paints TBT based antifouling, 1987 ban, effect on butyltin concentrations, UK 905 Paper mill, recycling, mass balance PCDD/PCDF, 1633 pulp effluents: prep chloro-syringols and -pyrogallols 921 prep and prop chloro-3-methoxycatechol compenents 911 Paraoxon photodegradation rates, inclusion effects of cyclodextrins, aquatic systems 1961 Parathion photodegradation rates,

inclusion effects of cyclodextrins, aquatic systems 1961 Particles coarse and fine inorganic components, indoor/outdoor relationship, Taiwan 1477 Partitioning coeffs, hydrophobic contaminants, natural

elutriates from dosed sediment, comparison of methods 583 hydrophobic organic compds, aqueous systems 145 motor oil components into water 1385 PBCDDs microscale synthesis 11 PBCDFs microscale

water, porewater,

synthesis 11 PBDDs microscale synthesis 11 PCBs 2,2',4,4',5,5'hexachloro-deriv, interactions toxicokinetic mixture liver neonatal rats, prepand postnatal exposure 1581 3,3',4,4'-tetrachlorobiphenyl, degradation by selected white rot fungi 1127 analysis, occurrence in milk, use of carbosphere activated carbon 693 concentration, temporal USA 725 variations, St Lawrence river, tributaries 947 coplanar: bilirubin UDP-glucuronyltransferase induction and CYP4A1 P450, rat and guinea pig different responsiveness 639 in dolphins, US Atlantic 1245 di-0,0'-Cl-, mono-O-Cl-and non-O-Cl-substit congeners, identification in Necker river fish 1913 dioxin levels, plasma, human milk, Dutch women and infants 1721 EIA, equilibrium fugacity calulations, worst case approach 2151 emission biofuel combustion 1895 exposure from food by Dutch Turks, revelance of mutton 675 formation in silicone rubber 2197 growth degrading bacteria on compds from photosynthetic halogenated, plants 981 levels in seals, monitoring by blood sampling 3

long term trends, mussels W Meditteranean coast 897 microbial reductive dechlorination, heat and bromoethanesulfonate treated anaerobic sediment slurries 2269 non-, mono- and di-ortho substit, toxic equivalency factors concentration: 1049 separation, prototype smetic liquidcrystalline polysiloxane stationary phase capillary column 2087 sewage sludge, cities PCDDs analysis, occurrence in milk, use of carbosphere activated carbon 693 co-combustion mixed plastics with coal, exploratory principal component analysis 1989 concentration: distribution in wood ash 1311 incineration of decabrombiphenyl ether in polymeric matrices, effect of water and metals 1921 contaminated fish, human health risk, Canada 1079 emissions from waste combustion plants, UK 2101 flue removal efficiency by water spray into gas flow, waste incinerators 1417 formation: during composting 155 incinerator fly ash, time scale analysis 23 incineration pilot study, effect of organic, inorganic chlorine 2129 PCDEs conformational properties, NMR analysis 1069

reclamation plant 1279 PCDFs analysis, occurrence in milk, use of carbosphere activated carbon 693 co-combustion mixed plastics with coal, exploratory principal component analysis 1989 distribution in wood ash 1311 landfills and disposal sites for chlorophenolic wood preservatives waste 911 in contaminated fish, human health risk, Canada 1079 in incineration of decabrombiphenyl ether in polymeric matrices, effect of water and metals 1921 EIA, equilibrium fugacity calculations and worst case approach 2151 emissions from waste combustion plants, UK 2101 flue removal efficiency by water spray into gas flow, waste incinerators 1417 formation: during composting, 155 incineration pilot study, effect organic, inorganic chlorine 2129 incinerator fly ash, analysis of time scales 23 mass balance in recycling paper mill 1633 microscale synthesis, 11 PCDDs mixtures, bioaccumulation by fish, effect of sediment 1433 pharmacokinetic modeling in cows 711 sampling: analysis, water suspended matter, river Elbe 63 in samples from metal in wastewater from

flue gas scrubbers, coal power plant waste incinerators 2173 PenCB bilirubin UDP-glucuronyltransferas e induction and CYP4A1 P450, rat, guinea pig different responsiveness 639 Pentachlorophenol bacterial degradation, effect of As 559 Perca fluviatilis bile, analysis for chlorophenolics from bleach kraft mill effluent 1701 Perchloroethylene, trichloroethylene OH radical initiated oxidation, product study 2029 Peroxidase horseradish, oxidative coupling phenol 1807 Pesticides airborne, sampler
 modification and test trapping efficiency of adsorbents 1135 effect aquatic microcosm systems, experimental approach 501 glyphosate, effect on Cu adsorption by montmorillonite 2185 losses into subsurface drains on loamy silt soil 273 precipitation in N.Germany 1559 runoff to surface water, fugacity model development, validation, 511 Petroleum see also Gasoline petroporphyrin indicators, soil contamination by crude oil 1599 Petroporphyrins indicators, soil contamination by crude oil 1599 pH effect on chemical stability chlorinated compds pulp bleaching liquors 881

Phaeodactylum

tricornutum hydrophobic

fluorescent organic

matter production 117

Pharmacokinetics modeling PCDD/PCDF in cows 711 Phenanthrenes chlorinated and alkylchloro derivs, in pulp mill products and discharges 1261 Phenols chlorinated, precursors dioxins, furans in bleach plant 1883 oxidation coupling by horseradish peroxidase 1807 toxicity to bacteria, growth inhibition test with sewage bacteria 755 Phenylmethylsulfonyl fluoride photodegradation in microemulsion media 1967 Phoca vitulina PCB/DDT levels, monitoring by blood sampling 3 Phospholipids lipopolysaccharides, fatty acid patterns in environmental samples 391 Photodegradation rates, parathion and paraoxon, inclusion effects of cyclodextrins aquatic systems 1961 toxic organo-P analog (PMSF) in microemulsion media 1967 Photolysis VUV water, mineralization of atrazine 2121 Photooxidation exhaust pollutants 1289 Photoreactions catalysed transformation of nitrobenzene on TiO2 and ZnO 1229 catalysis, sensitized, azo dyes in solid system, feasibility study 1021 decomposition: 2-chlorophenol promoted by ferric ion 57 bis-2-ethylhexyl phthalate 1489 degradation, quinoline in water 1097 inactivation,

Escherichia coli in water presence titanium dioxide catalyst 607 induced toxicity, QDARs, PAH lethality to Daphnia magna 567 oxidation, aqueous soln metalaxyl, hydrogen peroxide and titanium dioxide presence 341 CdS dissolution, effect Cu ions, 663 UV-O[UU]2,  $UV-H_2O_2$ , UV-TiO<sub>2</sub> and photo-Fenton reaction, comparison in oxidation processes, wastewater treatment 1447 Physico-chemistry calculation physical properties chlorobenzenes 1675 ecotoxicological data compared, multivariate analysis and graphical displays 2249 unified physical property relationships 1657 Phytoplankton bioaccumulation chlorobenzene, temp dependency 2041 Picea abies gas phase contamination, distribution semivolatile compds 1689 Plants agricultural, uptake pathways of organic compds from soil 297 conifer needles, gas phase contamination, distribution semivolatile compds 1689 Cr in Swiss chard grown on soil with tannery meal fertiliser 717 halophytes, trace metals, occurrence, distribution 1189 herbicide tolerant, degradation mixture of 3 herbicides enhanced in rhizosphere 1551 photosynthetic, growth

PCB degrading bacteria on compds 981 soil systems, CBs fate behaviour by sewage sludge application 1325 outdoor conditions, fate of 15N urea 333 TCDD vapor-phase foliage sorption, species comparison 207 Plasma see Blood Plastics chlorinated hydrocarbons, incineration, toxic combustion products 183 mixed, co-combustion with coal, formation PCDD/PCDF, exploratory principal component analysis 1989 Platichthys flesus, toxicity, QSAR chlorophenols 825 PMSF photodegradation in microemulsion media 1967 Poecilia reticulata bioaccumulation PCDD/PCDF mixtures by fish, effect of sediment 1433 chlorinated anilines, bioconcentration kinetics 159 Pollutants exhaust, photooxidation, 1289 hydrophobic, partition coeffs, natural water, porewater, elutriates from dosed sediment, comparison of methods 583 loads in seals, monitoring PCB/DDT levels by blood sampling 3 organic, hydrolysis, effect temp, pH, ionic strength and humic substances 1749 Pollution see also Contamination bioavailability, microbial respiration quotient as indicator of bioremediation 477

biomonitoring, hepatic

cytochrome p-450 enzyme system in

Apodemus flavicollius biodegradation as indicator 1525 investigation. chlorobenzene content UK sewage sludges 1201 river Elbe, Hasse diagrams, algebraic/graphical comparison tool, ecosystems 863, 873 Polychlorinated compds dibenzothiophene and alkylated derivs, level and identification in pulp mill sediments effluents 2049 diphenylsulfides and alkylated derivs, level and identification in pulp mill sediments effluents 2049 thianthrenes and alkylated derivs, level and identification in pulp mill sediments effluents 2049 Polychlorinated diphenylethers see PCDEs Polymers water insoluble, biodegradation, aerobic, anaerobic aquatic environment 1757 Polyphsa peniculus arsenic methylation presence of L-methioninemethyl-D<sub>3</sub> 1009 Polystyrene styrofoam, detection brominated flame retardants 1211 Polyurethane foams containing CFC, co-combustion incineration plants 1455 Polyvinylidene polyvinyl chloride, incineration toxic combustion products 183 Precipitation pesticides in N.Germany 1559 Precopula disruption in Gammaruus pulex, brief exposure to lindane 2011 Principal component analysis formation PCDD/PCDF, co-combustion mixed plastics with coal 1989 Priolube 3999

investigation, synthetic lubricant base stock 813 Prosopium williamsonii PCDD/PCDF contaminated, human health risk, Canada 1079 Protonation 9-phenylphenanthrene, decay and radiolytic, formation 2,3-benzofluoranthrene, 1733 Pulp bleached Kraft and mill discharge, chlorinated- and alkyl-fluorenes 2139 mill effluent: bleaching, high mol wt chlorolignin sorption on sediment 1773 mutagenicity and toxicity assessment 1859 mill products and discharges, alkylchloronaphthalenes, chlorophenanthrenes, alkylchlorophenanthrenes 1261 PVC photodecomposition bis-2-ethylhexyl phthalate 1489

**OSARs** base-line toxicity to Chironomus riparius 989 organic chemical sorption, soils and sediments 1171 photoinduced toxicity, PAH lethality to Daphnia magna 567 toxicity chlorophenols to copepodid of Tisbe battagliai, Platichthys flesus and Solea solea 825 Quinoline in water, photodegradation 1097

Rain acid simulated, effect on biological activity subacid soil 1087 pesticide precipitation in N.Germany 1559 simulation field plots, herbicides in surface age runoff 649
Redox capacity natural,
disequilibrium systems,
review understanding 613

Respiration

activity, growth inhibition test with sewage bacteria, chemical toxicity to bateria 755 quotient, microorganisms as indicator of bioremediation 477 Reviews understanding redox capacity natural disequilibrium systems 613 Rhizosphere herbicide tolerant plants, degradation mixture of 3 herbicides enhanced 1551 Rhynchostegium

riparioides use in assessing accidental pollution by Cu 2001 Rice wastewater irrigation land treatment, fate of heavy metals 375 Risk assessment, see

Risk assessment, see hazard assessment Rubber silicone PCB formation 2197

S

Safety assessment insecticide release

insecticide release
electric vaporizer,
indoor simulation by
fugacity model 767
simulation insecticide
indoor behavior by
electric vaporizer
435

SARs sulfonic acids, ecotoxicity toxicity, Bua compilation 2203

Scenedesmus sp bioaccumulation chlorobenzene, temp dependency 2041 Sediments

anaerobic slurries, bromoethanesulfonate and heat treated, microbial reductive dechlorination PCBs 2269

contaminant bioassays, effect of feeding Chironomus riparius larvae 597

dosed, natural water, porewater,

elutriates, partition coeffs hydrophobic contaminants, comparison of methods 583

Silicone rubber, PCB formation 2197

Simazine behaviour processes wastewater treatments and the second second

effect on bioaccumulation PCDD/PCDF mixtures by fish 1433

extracts, microbial assays, detect and quantify contaminants with similar action 169

gulf of Finland, background levels EOX/AOX 99

lake, detn sorption coeffs chlorobenzenes, experimental problems 931

pulp mill,
 identification and
 level chlorinated
 neutral aromatic

sulfur compds and alkylated derivs 2049

Qsars organic chemical sorption 1171

sea, dechlorination 1,2,4-trichlorobenzene 2179

sorption high mol wt chlorolignin 1773 toxicity, experimental

approach aquatic
microcosm systems
501

Semiconductor oxides

TiO<sub>2</sub> and ZnO, photocatalysed transformation of nitrobenzene 1229

bacteria, growth
inhibition test,
assessing bacterial
toxicity of
chemicals 755

sludge:
 application, CBs fate
 behaviour in
 soil/plant
 systems 1325
 elements and PCBs,

cities USA 725 UK, chlorobenzene content 1201

Sheep TCDD/TCDF/planar PCB exposure from food by Dutch Turks 675 Silage grass juice, heavy metal removal from polluted soil 383

formation 2197
Simazine behaviour prim, sec wastewater treatment 1611
Sludge sewage, elements and PCBs, cities USA 725
Smetic column
liquid-crystalline polysiloxane capillary stationary phase, separation PCBs, PAHs 2087
Smoke cigarette, extract treated erythrocytes

Smoke cigarette, extract treated erythrocytes, increased autoantiboby binding 2285

Snails

effect of dietary
1,3,6,8-TCDD 1369
molluscicide
formulations,
controlled release
with improved
environmental
acceptance 305

Snow pesticide precipitation in N.Germany 1559
Sodium bromide
3,4-dichloroaniline toxicity compared, 21 day test using lactate dehydrogenase acivity in Daphnia magna 2021

Soil
agricultural, model
 nitrous oxide
 emission, Florida
1401

atrazine seasonal dynamics, outdoor conditions 453

contamination by crude oil, petroporphyrin indicators 1599

earthworms, assessment of ecological impact of xenobiotics 413

fertilized with tannery meal, Cr in Swiss chard 717

irrigated turfgrass,
 migration of
 isazofos 721

loamy silt, leaching of herbicides into drain water 273

microbial respiration quotient as indicator of bioremediation 477

non-cultivated, herbicide mobility 285

organic compds, uptake

pathways by agricultural plants 297 outdoor conditions, fate

15-N urea in soil/plant conditions 333

PAH extraction from samples 683

plant systems, CBs fate behaviour by sewage sludge application 1325

pollutants, transformation by biotic and abiotic processes 323

pollution, heavy metal removal with grass silage juice 383

Qsars organic chemical sorption 1171

sorption terbuthylazine, atrazine in relation physico-chemical properties 467

subacid, microbiological parameters, effect simulated acid rain 1087

terbuthylazine transport, effect dissolved organic matter field study 533

tetra- to hexachloronon-ortho coplanar PCBs, source, levels features 47

total leachable amounts of organic halogens 1467

toxic substances, stardarized water risk assessment 219

trifluralin
volatilization,
effect of air
velocity, temp and

humidity 491
wastewater irrigation
land treatment, fate
of heavy metals 375

of heavy metals 375
Solea solea toxicity,
QSAR chlorophenols 825
Solvents

chlorinated alkanes, structure-toxicity correlation 253

lipophilic, emulsified by ultrasound to cultured, cytotoxicity fish cells and fish lethality data, good correlation 1495  $\begin{array}{lll} \textbf{Sorbents} & \text{organic varying} & \text{absorption into} \\ \text{in polarity and} & \text{quiescent water} \\ \text{aromaticity,} & \alpha\text{-naphthol} & \text{interfacial} \\ \text{sorption 145} & \text{resistance film} \\ \end{array}$ 

Sorption
CBs fate behaviour of
CBs in soil/plant
systems 1325

coeffs, chlorobenzene detn, experimental problems 931

plant foliage, vapor-phase TCDD, species comparison 207

Qsars organic chemicals, soils and sediments 1171

sediment, high mol wt
 chlorolignin 1773
Spectrometry GC-MSD detn
biogenic hydrocarbons,
detn in semi-urban
air 837

Starch encapsulated herbicides, controlled release, environmental contamination potential 1035

Strontium contamination zebra mussels, <u>Dreissena</u> <u>polymorpha</u> for biomonitoring 729

Structures
correlation with
toxicity, chlorinated
alkanes 253
x-ray analysis toxaphene

x-ray analysis toxaphene congeners 2067

Sturm test
biodegradability, carbon
dioxide recovery 801
Styrofoam detection
brominated flame
retardants 1211
Sulfate reducing
activity, dechlorination
1,2,4-trichlorobenzene,
sediment Ise bay 2179
Sulfonic acids SARs
ecotoxicity, toxicity,
BUA compilation 2203
Sulfur

biogenic species, tropospheric reactions, field measurement NW Scotland 543

chlorinated neutral aromatic compds and alkylated derivs, level and identification in pulp mill sediments effluents 2049

Sulfur dioxide

absorption into quiescent water with interfacial resistance film model 1217

Surface water pesticide release, fugacity model development, validation 511

Surfactants testing for ultimate

biodegradability 1503

TBT based antifouling paints, 1987 ban, effect on butyltin concentrations, UK 905
TCB bilirubin
UDP-glucuronyltransferase induction and CYP4A1
P450, rat, guinea pig different responsiveness 639

TCDDs
1,3,6,8-, dietary,
effect on Oryzias
latiupes,
Indoplanorbis
exustus 1369

2,2',4,4',5,5'-hexachloro-PCB, interactions toxicokinetic mixture liver neonatal rats, prepand postnatal exposure 1581

exposure from food by Dutch Turks, revelance of mutton 675

hydrophobic organic compds biota-tosediment ratio lake Ontario 75

vapor-phase plant foliage sorption, species comparison 207

TCDFs exposure from food by Dutch Turks, revelance of mutton 675 Techniques

OH radical concentration environmental chambers using electron spin resonance 999

PAH extraction from soil samples 683

Terbutylazine
atrazine, sorption in
relation physicochemical

properties in 3
soils 467
surface water release,
fugacity model
development,
validation 511
transport, effect
dissolved organic
matter field study
533

Terpenes related compds, detn in semi-urban air by GC-MSD 837
Tetrachloroanilines bioconcentration kinetics, Poecilia reticulata

Thianthrenes
polychlorinated produced
in metal reclamation
1279

Time-scale analysis PCDD/PCDF formation, incinerator fly ash 23 Tisbe battagliai copepodid stage, toxicity QSAR

toxicity QSAR chlorophenols 825 Titanium

dioxide, catalyst,
photoinactivation
<u>Escherichia coli</u> in
water 607

oxide and ZnO, photocatalysed transformation of nitrobenzene 1229

Tobacco Bel W3 indicators and abiotic desposition, comparison

based on indigo paper, effect ozone monitoring, Munich traffic 1905 1905

Toxaphene

congeners, structure by x-ray analysis 2067 synthesis and isolation seal blubber, enatiomer selective separation 89

mixture, structure of chlorinated bornanes and calculation of toxaphene components 245

residues, quatification by HRGC-ECD and HRGC-NICI SIM in marine organisms, environmentally relevant chlorobornanes as standard 237

Toxic equivalency

factors

dioxin-like PCBs 1049
PCDD/PCDF contaminated
fish, human health
risk, Canada 1079
Toxicity,

3,4-dichloroaniline and sodium bromide compared, 21 day test using lactate dehydrogenase acivity in Daphnia magna 2021

assessment, pulp mill effluent 1859 base-line to Chironomus

riparius QSARs 989 chemicals to bacteria, growth inhibition test with sewage

bacteria 755
correlation with
structure,
chlorinated alkanes
253

di-O-O'-Cl-, mono-O-Cland non-O-Cl-substit PCB congeners 1913

ecotoxicity, sulfonic acids, SARs, BUA compilation 2203 glyphosate to fish 745

organic chemicals in presence humic substances 357

PAH to <u>Daphnia magna</u>, QSARs for photoinduced toxicity 567

QSAR, chlorophenols to copepodid of <u>Tisbe</u> battagliai, <u>Platichthys</u> flesus and <u>Solea</u> solea 825

soil, stardarized water risk assessment 219 Toxicokinetics

interactions TCDDs, PCBs, pre- and postnatal exposure liver neonatal rats 1581

Traffic Munich, bioindicators and abiotic desposition, comparison based on indigo paper, effect ozone monitoring 1905 Transport

herbicides, surface runoff, rainfall simulation field plots 649

terbuthylazine, effect dissolved organic

1,2,4-Trichlorobenzene
dechlorination sediment
Ise bay 2179
Trichloroethylene fly
ash catalysed reactions,
formation
chlorinated benzenes,
phenols 1977
Trifluralin
volatilization from
soil, effect of air
velocity, temp
and humidity 491
1-(2,4,6-Trimethoxypheny
1) but-2(E)-en-1-one

matter field study

533

1791
Troposphere reactions biogenic sulfur species, field measurement NW Scotland 543
TRP-P-2 genotoxicity, cytotoxicity.

brief synthesis

cytotoxicity, 3-amino-1-methyl-5H-pyri do[4,3-d]indole 853

UDP-glucuronyltransferas
e bilirubin induction
and CYP4A1 P450 by
coplanar PCBs, rat
guinea pig different
responsiveness 639
Ultrasonic extraction
PAHs recovery from coal
stack ash surfaces
1741
UPPER

calculation physical properties of chlorobenzenes 1675 evaluation physical properties, environmental relationships organic compds 1657

organic compds 1657
Urea <sup>15</sup>N, fate in
plant/soil systems,
outdoor conditions 333
UV-O[UU]2 UV-H<sub>2</sub>O<sub>2</sub>,
UV-TiO<sub>2</sub> and photo-Fenton
reaction, comparison in
oxidation processes,
wastewater treatment
1447
UVP risk values.

UVP risk values, chemicals and mixtures, different species and habitats 2151
UVU risk values, chemicals and mixtures, different species and habitats 2151

Vacuum-UV photolysis, water, mineralization of atrazine 2121 Vapor sampler modification, pesticides test trapping efficiency of adsorbents 1135 Vaporizer electric, simulation insecticide indoor

behavior 435 electric insecticide release, indoor simulation by fugacity model 767

Volatilization

CBs fate behaviour of CBs in soil/plant systems 1325 trifluralin from soil, effect of air velocity, temp and humidity 491

Voltammetry anodic stripping, use in glyphosate effect on Cu adsorption by montmorillonite 2185

W Warfare agents

photodegradation PMSF in microemulsion media 1967 Waste

bleached Kraft pulp mill discharge, chlorinated- and alkyl-fluorenes 2139 chlorophenolic wood preservatives PCDD/PCDF concentrations, landfills, disposal

sites 971 combustion plants, PCDD/PCDF emission UK 2101

incinerators, coal power plants, PCDD/PCDF in wastewater from flue gas scrubbers 2173

Wastewater

advanced oxidation treatment, comparison UV-0[UU]2, UV-H<sub>2</sub>O<sub>2</sub>, UV-TiO<sub>2</sub> and photo-Fenton reaction 1447 irrigation land treatment, fate of heavy metals 375

prim, sec treatment,

behaviour atrazine, simazine, desethyl-atrazinw and German environmental desisopropylatrazine 1611

Water see also Drinking water, Ground water, Natural water

chlorination, formation chlorinated hydrocarbons 229

contaminants, transformation by biotic and abiotic processes 323

contamination, herbicide application non-cultivated soil, 285

effect on PCDD/PCDF concentration, incineration decabrombiphenyl ether in polymeric matrices 1921 partitioning motor oil

components 1385 quiescent with interfacial resistance, film model for sulfur dioxide absorption

1217 risk assessment, toxic substances in soil 219

quality:

Hasse diagrams, algebraic/graphical comparison tool pollution ecosystems 863, 873

leaching of herbicides into subsurface drains 273

VUV photolysis, mineralization of atrazine 2121

Wildlife hexachloronaphthalenes appearance after selective retention rat liver 2075 Wood ash, PCDD/PCDF

concentration dsistribution 1311

X X-ray analysis structures toxaphene congeners 2067 Xenobiotics assessment of ecological

impact by soil earthworms 413 bank, concepts and results chlorinated hydrocarbons 313

hazard assessment evaluated by ecotoxicological standard tests 357

organic, uptake pathways from soil by agricultural plants 297

water and soil contaminants, biotic and abiotic transformation 323

Z Zooplankton linear alkylbenzenes, aliphatic hydrocarbons, gulf of Trieste 1119 age

# AUTHOR INDEX VOL. 28, 1994

Ablitt T. see Battersby N.S.

Ahel M. Scully F.E. Jr.
Hoigné J. and Giger W.
Photochemical degradation
of nonylphenel and hotochemical

nonylphenol and nonylphenol polyethoxylates in natural waters 1361 Ahlborg U.G. Becking G.C. Birnbaum L.S. Brouwer A. Derks H.J.G.M. Feeley M. Golor G. Hanberg A. Larsen J.C. Liem A.K.D. Safe S.H. Schlatter C. Wærn F. Younes M. and Yrjänheikki E. Toxic equivalency factors for dioxin-like PCBs 1049

Ahlers J. see Greim H. 2203 Aittola J.-P. see Sinkkonen S. 1279

Akimoto Y. and Nito S. Removal efficiency of polychlorinated dibenzo-pdioxins and dibenzofurans in flue gas generated from municipal solid waste

incinerators by water spray into the gas flow 1417 Albaigés J. see Solé M. 897 Allinson G. Ueoka and Morita M. Effect of dietary 1,3,6,8-tetrachlorodibenzop-dioxin on the Japanese feshwater fish *Oryzias* latipes 1369

Altwicker E. see Konduri R.

Anderson T.A. Kruger E.L. and Coats J.R. Enhanced degradation of a mixture of three herbicides in the rhizosphere of a herbicidetolerant plant 1551

Ando K. see Beppu M. 2285 Ando M. see Hanioka N. 1589

Ankley G.T. see Mekenyan O.G. 567

Antón F.A. Laborda E. and de Ariz M. Acute toxicity of the herbicide glyphosate to fish 745

Ariyoshi N. see Koga Y. 639 Artusi R. see Serrazanetti G.P. 1119

Asplund G. Grimvall A. and Jonsson S. Determination of the total and leachable amounts of organohalogens in soil 1467

Asplund L. Jakobsson E. Haglund P. and Bergman A. 1,2,3,5,6,7-Hexachloronaphthalene and 1,2,3,4,6,7-hexachloronaphthalene selective retention in rat liver and appearance in wildlife 2075

Assmuth T. and Vartiainen T. Concentrations of 2,3,7,8-chlorinated dibenzop-dioxins and dibenzofurans at landfills and disposal sites for chlorophenolic wood preservative wastes

Bacci E. Bucci M. Sbrilli G. Brilli L. Gambassi F. and Gaggi C. Marine bacteria as indicators of water

quality 1165
Bahadir M. see Devare M. 261

Bahadir M. see Pfister G.

Bai Q.Y. see Zelles L. 391 Ballhorn L. see Freitag D.

Bark A.W. see Malbouisson J.F.C. 2011

Battersby N.S. Fieldwick P.A. Ablitt T. Lee S.A. and Moys G.R. The interpreation of CEC L-33-T-82 biodegradability test data 787

Bauer R. see Ruppert G.

Bayer E. see Greim H. 2203 Becking G.C. see Ahlborg U.G. 1049

Behechti A. see Freitag D. 253

Bejarano M. see Morillo E. 2185

Beppu M. Ando K. Imadachi K. Morichi Y. and Kikugawa K. Increased binding of autoantibody to erythrocytes treated with cigarette smoke extract 2285

Berende P.L.M. see Derks H.J.G.M. 711

Bergheim W. see Lahaniatis E.S. 229

Bergman Å. see Asplund L. 2075

Berry R.M. see Luthe C.E. 1883

Berset J.D. and Holzer R. Separation of important PCBs and PAhs on a prototype smectic liquid-crystalline polysiloxane stationary phase capillary column 2087

Bhatia A. Tobil F. Lepschy
G. Werk X. and Mazzucco
K. Biomonitoring of

pollution: the hepatic cytochrome P-450 enzyme system in the feral mouse Apodemus flavicollis as indicator 1525

Bias R. see Greim H. 2203 Bichimaier A. see Santi H.

Bieniek D. see Leidmann P.

Bieniek D. see Lenoir D.

Bierl R. see Eschenbach A.

Bierling B. see Schroll R.

Bintein S. and Devillers J. QSAR for organic chemical sorption in soils and sediments 1171

Birnbaum L.S. see Ahlborg U.G. 1049

Blankenship A. Chang D.P.Y. Jones A.D. Kelly P.B. Kennedy I.M. Matsumura F. Pasek R. and Yang G. Toxic combustion by-products from the incineration of chlorinated hydrocarbons and plastics 183

Boersma E.R. see Kooperman-Esseboom C.

Bombick D.D. see Serve M.P. 1571

Bouwman C. see De Jongh J. 1581

Braun A.M. see Gonzalez M.C. 2121 Brilli L. see Bacci E. 1165

Broecker B. see Greim H. 2203

**Brouwer D.H. Ravensberg** J.C. De Kort W.L.A.M. and

Van Hemmen J.J. A personal sampler for inhalable mixed-phase aerosols: modification to an existing sampler and validation test with three pesticides 1135

Brouwer A. see Ahlborg U.G. 1049

Brown S. see Xu H. 1599 Brüggemann R. see Münzer B. 873

Brüggemann R. Münzer B. and Halfon E. An algebraic/graphical tool to compare ecosystems with respect to their pollution—the German river "Elbe" as an example –I. Hasse-diagrams 863

Bubb J.M. see Williams T.P. 1189

Bubb J.M. see Dowson P.H. 905

Bubb J.M. see Meakins N.C.

Bubner M. see Vyas B.R.M. 1127

Bucci M. see Bacci E. 1165 Buijze A. see Roghair C.J. 989

Bünemann T. see Hund K. 813

Burhenne J. see Xu L. 237 Burhenne J. see Hainzl D. 245

Burhenne J. see Frenzen G. 2067

Burnison B.K. see Rao S.S. 1859

Cains P.W. and Dyke P. Chlorinated dibenzodioxin and dibenofuran emissions from waste combustion plants in the UK 2101 Calamari D. see Di Guardo

A. 51

Call D.J. see Mekenyan O.G.

Cao G. see Schroll R. 297 Caponecchi G. see Nicoletti I. 1733

Carlson L. see Lassen P. 703

Carvalho A.P. see Guilhermino L. 2021 Chang D.P.Y. see Blankenship A. 183

Chang R.R. see Newman J.W. 1795

Chang C.Y. Liu I.H. Chang I.C. Chou Y.C. Liu S.C.

Shih S.M. and Hwang D.C. Film model for sulfur dioxide absorption into quiescent water with interfacial resistance 1217

Chang I.C. see Chang C.Y. 1217

Chao L. see Liqiang J. 1749 Chatkittikunwong W. and Creaser C.S. Microscale synthesis of bromo- and bromochloro-dibenzo-p-dioxins and dibenzofurans

Chen S. see Kamens R.M. 1623

Chen C.S.-H. Delfino J.J. and Rao P.S.C. Partitioning of organic and inorganic components from motor oil into water 1385

Chen D. see Kamens R.M. 1623

Chen J.M. see Davis A.P.

Chou Y.C. see Chang C.Y. 1217

Christmann W. see Rotard W. 2173

Claveri B. Morhain E. and Mouvet C. A methodology for the assessment of accidental copper pollution using the aquatic moss Rhynchostegium riparioides 2001

Clemens J.M. see Serve M.P. 1571

Coats J.R. see Anderson T.A. 1551

Consalter A. see Di Guardo A. 511

Conte L.S. see Serrazanetti G.P. 1119

Cook P.M. see Endicott D.D.

Creaser C.S. see Chatkittikunwong W. 11 Cullen W.R. Li H. Pergantis

S.A. Eigendorf G.K. and Harrison L.G. The methylation of arsenate by a marine alga *Polyphysa* peniculus in the presence of L-methionine-methyl-d<sub>3</sub> 1009

Dannenfelser R.-M. see Yalkowsky S.H. 1675 Dannenfelser R.-M. see Yalkowsky S.H. 1657 Davis A.P. Hao O.J. and Chen J.M. Kinetics of

heavy metal reactions with

ferrous sulfide 1147

Davis A.P. Hseih Y.H. and

Huang C.P. Photo-oxidative dissolution of CdS(s): the

effect of Cu(II) ions 663

Davison B. and Hewitt C.N.

Elucidation of the tropospheric reactions of biogenic sulfur species from a field measurement campaign in NW Scotland 543

de Ariz M. see Antón F.A.

de Jong A.P.J.M. see Derks H.J.G.M. 711 de Jong A.P.J.M. see Van der Velde E.G. 693

de Stefanis A. Perez G. Possagno E. and Lilla E. Pyrolysis of benzene-naphthalene mixtures: a temperature

dependence study 1255 de Vries P.J. see Schrap S.M. 931

de Wit D. see van der Zee M. 1757

de Wolf W. Yedema E.S.E. Seinen W. and Hermens J.L.M. Bioconcentration kinetics of chlorinated anilines in guppy, Poecilia reticulata 159

De Jongh J. Bouwman C. Nieboer R. Seinen W. Van den Berg M. Toxicokinetic mixture interactions between 2,3,7,8tetrachlorodibenzo-p-dioxin and 2,2'4,4',5,5'hexachlorobiphenyl in the liver of neonatal rats after pre- and postnatal exposure 1581

De Kort W.L.A.M. see Brouwer D.H. 1135 Deben D. see Liqiang J. 1749

Debus R. see Traub-Eberhard U. 501

Del Vecchio R. see Seritti A.

Delfino J.J. see Chen C.S.-H. 1385

Demon M. Schlavon M. Portal J.M. and Munier-Lamy C. Seasonal dynamics of atrazine in three soils under outdoor conditions 453

Derks H.J.G.M. Berende

P.L.M. Olling M. Everts H. Liem A.K.D. and de Jong A.P.J.M. Pharmacokinetic modeling of polychlorinated dibenzo-p-dioxins (PCDDs) and furans (PCDFs) in

cows 711

Derks H.J.G.M. see Ahlborg U.G. 1049

Devare M. and Bahadir M. Biological monitoring of landfill leachate using plants and luminescent bacteria 261

Devillers J. see Bintein S.

Di Guardo A. Calamari D. Zanin G. Consalter A. and Mackay D. A fugacity model of pesticide runoff to surface water: development

and validation 511

Dieckmann M.S. Gray K.A.
and Zepp R.G. The sensitized photocatalysis of azo dyes in a solid system: a feasibility study 1021 Dierickx P.J. see Solari P.

1495

Donato A.M. see Guilhermino L. 2021 Donegan S. see Yang Y. 1967

Donnelly P.K. Hegde R.S. and Fletcher J.S. Growth of PCB-degrading bacteria on compounds from photosynthetic plants 981 Dörfler U. see Schroll R. 297

Dortland C. see Luijk R. 1299

Doss G.J. see Grubinger V.P. 717

Dousset S. Mouvet C. and Schiavon M. Sorption of terbuthylazine and atrazine in relation to the physicochemical properties of three soils 467

Dowson P.H. Bubb J.M. and Lester J.N. The effectiveness of the 1987 retail ban on TBT based antifouling paints in reducing butyltin concentrations in East Anglia, UK 905

Dudas M.J. see Xing B. 145 Dyke P. see Cains P.W. 2101

Egisäer H. see Strotmann U.J. 755

Eigendorf G.K. see Cullen W.R. 1009

Ekker M. see Jenssen B.M. 3 El-Naggar M. see Pfister G.

**Endicott D.D. and Cook** P.M. Modeling the partitioning and bioaccumulation of TCDD and other hydrophobic organic chemicals in Lake Ontario 75

Enge P. see Götz R. 63 Engelmann W.H. see

Steinberg S.M. 1819 Eschenbach A. Kästner M. Bierl R. Schaefer G. and Mahro B. Evaluation of a new, effective method to extract polycyclic aromatic hydrocarbons from soil samples 683

Everts H. see Derks H.J.G.M. 711

Falappi D. Farini A. Ranalli G. and Sorlini C. Effects of simulated acid rain on some microbiological parameters of subacid soil 1087

Fängmark I. see Marklund S. 1895

Farini A. see Falappi D. 1087 Farmer C.T. see Riemer D.D. 837

Feeley M. see Ahlborg U.G.

Feicht E.A. see Mansour M. 323

Feicht E.A. see Nüßlein F.

Fieldwick P.A. see Battersby N.S. 787

Fischer K. see Leidmann P. 383

Fischer K. see Freitag D.

Fletcher J.S. see Donnelly P.K. 981

Florence L.Z. see George L.M. 1871

Förlin L. see Söderström M.

Frankenhaeuser M. see Ruuskanen J. 1989

Freitag D. Ballhorn L.
Behechti A. Fischer K.
and Thumm W. Structural configuration and toxicity of chlorinated alkanes 253

Frenzen G. Hainzl D. Burhenne J. and Parlar H. Structure elucidation of the

three most important toxaphene congeners by Xray analysis 2067 Friesel P. see Götz R. 63

Froese K.L. and Hutzinger O. The formation of chlorinated benzenes and phenols in flyash catalysed reactions of

trichloroethylene 1977

Fro!king S.E. see Li C. 1401

Fruget J.F. see Jean G.

Fukui M. see Yonezawa Y. 2179

Funae Y. see Koga Y. 639 Furay V.J. see Smith S. 825

Gaggi C. see Bacci E. 1165 Gambassi F. see Bacci E. 1165

Gelbke H.-P. see Greim H.

Gentili B. see Migon C. 139 George L.M. Ramamoorthy S. and Florence L.Z. Geochemistry of mercury in watersheds of southern Alberta 1871

Germano G. see Zhang P. 607

**Geyer H.J.** see Steinberg C.E.W. 357

Giesey J.P. see Hoke R.A.

Giger W. see Ahel M. 1361 Gish T.J. see Wienhold B.J. 1035

Golor G. see Ahlborg U.G. 1049

Gonzalez M.C. Braun A.M. Prevot A.B. and Pelizzetti E. Vacuum-ultraviolet (VUV) photolysis of water: mineralization of atrazine 2121

Gottschild D. see Siebers J. 1559

Götz R. Enge P. Friesel P. Roch K. Kjeller L.-O. Kulp S.E. and Rappe C. Sampling and analysis of water and suspended particulate matter of the river Elbe for polychlorinated dibenzo-pdioxins (PCDDs) and dibenzolurans (PCDFs) 63

Govers H.A.J. see Loonen H. 1433

Govers H.A.J. see Luijk R. 1299

Grass B. Wenclawiak B.W.

and Rüdel H. Influence of air velocity, air temperature, and air humidity on the volatilisation of trifluralin from soil 491

Gray K.A. see Dieckmann M.S. 1021

Greim H. Ahlers J. Bias R. Broecker B. Hollander H.
Gelbke H.-P. Klimisch H.J. Mangelsdorf I. Paetz A.
Schön N. Stropp G. Vogel
R. Weber C. Ziegler-Skylakakis K. and Bayer E. Toxicity and ecotoxicity of sulfonic acids:

structure—activity
relationship 2203
Grill P. see Yediler A. 375
Grimvall A. see Asplund G. 1467

Gruber L. see Hund K. 813 Gruber L. see Santl H. 1633 Grubinger V.P. Gutenmann W.H. Doss G.J. Rutzke M. and Lisk D.J. Chromium in Swiss chard grown on soil amended with tannery meal fertilizer 717

Grundl T. A review of the current understanding of redox capacity in natural, disequilibrium systems 613

Gudaitis J.A. see Law F.C.P. 1079

Guilhermino L. Lopes M.C. Donato A.M. Silveira L. Carvalho A.P. and Soares A.M.V.M. Comparative study between the toxicity of 3,4-dichloroaniline and sodium bromide with 21days chronic test and using lactate dehydrogenase activity of *Daphnia magna* Straus 2021

Gupta G. see Li Y. 627 Gürtler K.R. and Kleinermanns K. Photooxidation of exhaust pollutants. II. Photooxidation of chloromethanes: degradation efficiencies, quantum yields and products 1289

Gutenmann W.H. see Grubinger V.P. 717 Gutenmann W.H. Rutzke M. Kuntz H.T. and Lisk D.J.

Elements and polychlorinated biphenyls in sewage sludges of large cities in the United States

725 Gutenmann W.H. see Roseman E.F. 737

Haebler R. see Kuehl D.W. 1245

Hagenmaler H. see Krauß Th. 155

Haglund P. see Asplund L.

Haiber G. and Schöler H.F. Identification of di-o,o'-Cl-, mono-o-CI- and non-o-CIsubstituted PCB congeners in Neckar river fish 1913 Haider J. see Klöppel H. 649

Hainzl D. see Frenzen G. 2067

Hainzl D. Burhenne J. and Parlar H. Theoretical consideration of the structural variety in the toxaphene mixture taking into account recent experimental results 245 Hainzi D. see Xu L. 237
Haifon E. see Münzer B. 873
Haifon E. see Brüggemann

R. 863 Halonen I. Tarhanen J. Ollikainen S. Ruokojärvi, Tuppurainen K. and Ruuskanen J. The effect of inorganic and organic chlorine on formation of highly chlorinated organic compounds during

incineration: laboratory pilot study 2129
Hanberg A. see Ahlborg U.G. 1049

Hanioka N. Jinno H. Toyo'oka T. Kojima S. and Ando M. Effect of chlorinated dibenzo-pdioxins on 7ethoxycoumarin Odeethylase activity in rat liver microsomes 1589 Hao O.J. see Davis A.P.

Harkey G.A. Landrum P.F. and Klaine S.J. Partition coefficients of hydrophobic contaminants in natural water, porewater, and elutriates obtained from dosed sediment: a comparison of

methodologies 583
Harkey G.A. Landrum P.F.
and Klaine S.J. Preliminary studies on the effect of

feeding during whole sediment bioassays using Chironomus riparius larvae 597

Harrison L.G. see Cullen W.R. 1009

Harriss R.C. see Li C. 1401 Hassink J. Klein A. Kördel W. and Klein W. Behaviour of herbicides in noncultivated soils 285

Hauk H. see Umlauf G. 1689 Heath O.D. see Stephens D.L. 174

Hegde R.S. see Donnelly P.K. 981

Heisler G. see Ruppert G.

Hermens J.L.M. see de Wolf W. 159

Hermens J.L.M. see Roghair C.J. 989

Heumann K.G. see Schall C. 1315

Hewitt C.N. see Stokes N.J. 999

Hewitt C.N. see Davison B.

Hirota T. see Matoba Y. 435

Hoigné J. see Ahel M. 1361 Hoke R.A. Jones P.D. Maccubbin A.E. Zabik M.J. and Giesey J.P. Use of in vitro micobial assays of sediment extracts to detect and quantify contaminants with similar modes of action

Hollander H. see Greim H. 2203

Holmbom B. see Smeds A. 881

Holzer R. see Berset J.D. 2087

Hong Y.-T. see Li C.-S. 1477 Hoogerbrugge R. see Van der Velde E.G. 693 Hormi O. see Långvik V.-A.

Hsieh Y.H. see Davis A.P. 663

Hu J. Kolehmainen E. Nevalainen T. and Kauppinen R. <sup>1</sup>H, <sup>13</sup>C NMR spectroscopy and conformational properties of 18 halogenated diphenyl ethers 1069

Huang Q. see Schweizer S. 961

Huang C.P. see Davis A.P. 663

Huisman M. see Kooperman-

Esseboom C. 1721
Huixian Z. and Taylor K.E.
Products of oxidative
coupling of phenol by
horseradish peroxidase
1807

Hund K. and Schenk B. The microbial respiration quotient as indicator for bioremediation processes 477

Hund K. Grolms U. and Bünemann T. Investigation of the biodegradation process of a synthetic lubricant base stock 813

Hustert K. see Moza P.N. 341

Hutzinger O. see Froese K.L. 1977

Hwang D.C. see Chang C.Y. 1217

Hyötyläinen J. Chemical degradation products of lignin and humic substances. Part II. Synthesis, structure verification and liquid chromatographic separation of chlorinated protocatechualdehydes (3,4-dihydroxybenzaldehydes), 5-hydroxyvanillins (3,4-dihydroxybenzaldehydes) and gallaldehydes (3,4,5-trihydroxybenzaldehydes) 1641

ibusuki T. see Itoh N. 2029 Imadachi K. see Beppu M. 2285

Inagaki A. see Kawaguchi H. 57

Ishiga H. see Segawa T. 853
Ishii Y. see Koga Y. 639
Itoh N. Kutsuna S. and
Ibusuki T. A product study
of the OH radical initiated
oxidation of
perchloroethylene and
trichloroethylene 2029

Jakobsson E. see Asplund L. 2075 Jan J. see Perdih A. 2197 Jansen J. see Luijk R. 1299 Jarman W.M. see Newman J.W. 1795

Jean G. and Fruget J.F. Comparison of ecotoxicological and physico-chemical data by use of multivariate analyses and graphical displays 2249 Jenq F.-T. see Li C.-S. 1477

Jeng F.-T. see LI C.-S. 1477
Jenssen B. M. Skaare J.U.
Ekker M. Vongraven D.
and Silverstone M. Blood
sampling as a nondestructive method for
monitoring levels and
effects of organochlorines
(PCB and DDT) in seals 3

Jimènez C.S. see Koelmans A.A. 2041

Jinno H. see Hanioka N. 1589

Jones A.D. see Blankenship A. 183

Jones K.C. see Wang M.-J. 1201

Jones P.D. see Hoke R.A. 169

Jones K.C. see Wang M.-J. 1325

Jonsson S. see Asplund G. 1467

Jørgensen O. see Lassen P. 703 Jourdan E. see Migon C.

Kaese P. see Rittmeyer C.

139

1455
Kallenborn R. Oehme M.
Vetter W. and Parlar H.
Enantiomer selective
separation of toxaphene
congeners isolated from
seal blubber and obtained
by synthesis 89

Kamens R.M. Zhi-Hua F.
Yao Y. Chen D. Chen S.
and Vartiainen M. The
methodology for modeling
the formation and decay of
nitro-PAH in the
atmosphere 1623

atmosphere 1623
Kamiya M. Nakamura K.
and Sasaki C. Inclusion
effects of cyclodextrins on
photodegradation rates of
parathion and paraoxon in
aquatic medium 1961

Kangas J. see Laitinen J. 197

Kankaanpää and Tissari J.
Background levels of EOX
and AOX in sediments of
the Gulf of Finland.
Molecular weight
distribution of EOX in the
sediments 99
Kästner M. see Eschenbach

A. 683 Kauppinen R. see Hu J. 1069

Kawaguchi H.
Photodecomposition of bis-

2-ethylhexyl phthalate 1489
Kawaguchi H. and Inagaki
A. Kinetics of ferric ion
promoted
photodecomposition of 2chlorophenol 57

Kelly P.B. see Blankenship A. 183

Kennedy I.M. see Blankenship A. 183 Kennicutt M.C. see McDonald S.J. 2237

McDonald S.J. 2237

Kettrup A. see Leidmann P. 383

Kettrup A. see Steinberg C.E.W. 357

Kettrup A. see Nüßlein F. 349

Kettrup A. see Yediler A. 375

Kettrup A. see Lenoir D. 1921

Kettrup A. see Nüßlein F. 219

Kettrup A. see Oxynos K. 313

Kettrup A. see Moza P.N. 341

Kikugawa K. see Beppu M. 2285

Kinney R.M. Manos Jr C.G. Mills E.L. Mellina E. and Lisk D.J. Zebra mussels (*Dreissena polymorpha*) as a biomonitoring tool for Sr<sup>50</sup> contamination 729

Kirsch N.H. and Stan H.-J.
A simple method for the preparation of dichlorocatechols 131

Kjeller L.-O. see Götz R. 63 Klaine S.J. see Harkey G.A. 597

Klaine S.J. see Harkey G.A. 583

Klein A. see Hassink J. 285 Klein W. see Traub-Eberhard U. 273

Klein W. see Hassink J. 285 Kleinermanns K. see Gürtler K.R. 1289

Klimisch H.-J. see Greim H. 2203

Klöppel H. Halder J. and Kördel W. Herbicides in surface runoff: a rainfall simulation study on small plots in the field 649 Knoth W. see Rotard W. 2173

Kochany J. and Maguire R.J. Photodegradation of quinoline in water 1097

Ködel W. see Traub-Eberhard U. 273

Koelmans A.A. and Jiménez C.S. Temperature dependency of chlorobenzene bioaccumulation in phytoplanton 2041

phytoplanton 2041

Koga Y. Tsuda M. Ariyoshi
N. Ishii Y. Yamada H.
Oguri K. Funae Y. and
Yoshimura H. Induction of
bilirubin UDPglucuronyltransferase and
CYP4A1 P450 by co-planar
PCBs: different
responsiveness of guinea
pigs and rats 639

Koistinen J. Paasivirta J. Nevalainen T. and Lahtiperä M. Chlorinated fluorenes and alkyfluorenes in bleached kraft pulp and pulp mill discharges 2139

Koistinen J. Paasivirta J. Nevalainen T. and Lahtiperä M. Chlorophenanthrenes, alkychlorophenanthrenes and allkylchlorophthalenes in kraft pulp mill products and discharges 1261

Koistinen J. see Sinkkonen S. 2049

Kojima S. see Hanioka N. 1589

Kojo I. see Ruuskanen J. 1989

Kolehmainen E. see Hu J. 1069

Kolehmainen E. see Sinkkonen S. 2049 Konduri R. and Altwick

Konduri R. and Altwicker.
Analysis of time scales
pertinent to dioxin/furan
formation on fly ash
surfaces in municipal solid
waste incinerators 23

Kooperman-Esseboom C.
Huisman M. WeisglasKuperus N. Van der
Paauw C.G. Tuinstra
L.G.M.Th. Boersma E.R.
and Sauer P.J.J. PCB and
dioxin levels in plasma and
human milk of 418 Dutch
women and their infants.
Predictive value of PCB

congener levels in maternal plasma for fetal and infant's exposure to PCBs and dioxins 1721

Kördel W. see Klöppel H. 649

Kördel W. see Hassink J.

Kotzias D. see Lahaniatis

E.S. 229
Krauß Th. Krauß P. and
Hagenmaier H. Formation
of PCDD/PCDF during
composting? 155

Krauß P. see Krauß Th. 155 Kruger E.L. see Anderson T.A. 1551

Kuehl D.W. Haebler R. and Potter C. Coplanar PCB and metal residues in dolphins from the U.S. Atlantic coast including Atlantic bottlenose obtained during the 1987/88 mass mortality 1245

mortality 1245
Kulp S.E. see Götz R. 63
Kuntz H.T. see Gutenmann
W.H. 725

Kutsuna S. see Itoh N. 2029

Laborda E. see Antón F.A. 745

Lahaniati M. see Schroll R. 297

Lahaniatis E.S. Bergheim W. Kotzias D. and Pilidis G. Formation of chlorinated hydrocarbons by water chlorination 229

Lahtiperä M. see Koistinen J. 2139

Lahtiperä M. see Koistinen J. 1261

Lahtiperä M. see Sinkkonen S. 2049

Lahtiperä M. see Sinkkonen S. 1279

Laitinen J. Kangas J. Pekari K. and Liesivuori J. Short time exposure of benzene and gasoline at garages 197

Lammi R. see Sinkkonen S. 2049

Landrum P.F. see Harkey G.A. 583

Landrum P.F. see Harkey G.A. 597

Langenbach T. see Schroll R. 297

Långvik V.-A. and Hormi O.
Possible reaction pathways
for the formation of 3-

chloro-4-(dichloromethyl)-5hydroxy-2(5H)-furanone (MX) 1111

Larsen J.C. see Ahlborg U.G. 1049

Lassen P. Randall A.

Jørgensen O. Warwick P.
and Carlsen L.

Enzymatically mediated incorporation of 2chlorophenol and 4chlorophenol into humic acids 703

Laturnus F. see Schall C.

Law F.C.P. and Gudaltis
J.A. A preliminary
assessment of human
health risks due to
consumption of fish
contaminated by dioxins
and furans in the Fraser
and Thompson Rivers 1079

Layiwola P.J. see Smith S. 825

Lee S.A. see Battersby N.S.

Leidmann P. Fischer K.
Bieniek D. Nüßlein and
Kettrup A. Removal of
heavy metals from polluted
soil with grass silage juice
383

Lemieux C. see Quémerais B. 1943

Lemieux C. see Quémerais B. 947

Lenoir D. Zier B. Bleniek D. and Kettrup A. The influence of water and metals in PBDD/F concentration in incineration of decabrombiphenyl ether in polymeric matrices 1921

Lepschy G. see Bhatia A.

Lesage S. see Xu H. 1599 Lester J.N. see Meakins N.C. 1611

Lester J.N. see Williams T.P. 1189

Lester J.N. see Dowson P.H. 905

Li C. Frolking S.E. Harriss R.C. and Terry R.E. Modeling nitrous oxide emissions from agriculture: a Florida case study 1401

Li C.-S. Hong Y.-T. and
Jeng F.-T. Indoor/outdoor
relationship for inorganic
components of coarse and
fine particles 1477

i H. see Cullen W.R. 1009 Li Y. and Gupta G. Adsorption/desorption of hydrocarbons on clay minerals 627

Liansheng W. see Ligiang J.

Liem A.K.D. see Theelen R.M.C. 675 Liem A.K.D. see Van der Velde E.G. 693

Liem A.K.D. see Ahlborg U.G. 1049 Liem A.K.D. see Derks

H.J.G.M. 711 Liesivuori J. see Laitinen J.

Lilla E. see de Stefanis A. 1255

Lilla E. see Nicoletti I. 1733 Liqiang J. Shukui H.
Liansheng W. Chao L. a
Deben D. The influential
factors of hydrolysis of organic pollutants in environment 1749

Lisk D.J. see Petrovic A.M.

Lisk D.J. see Gutenmann W.H. 725

Lisk D.J. see Kinney R.M.

Lisk D.J. see Roseman E.F.

Lisk D.J. see Grubinger V.P.

Liu I.H. see Chang C.Y. 1217 Liu S.C. see Chang C.Y. 1217

Liu H. see McDonald S.J.

Locke M.A. see Reddy K.N. 1929

Löfvenius G. see Marklund S. 1895

Loonen H. Parsons J.R. and Govers H.A.J. Effect of sediment on the bioaccumulation of a complex mixture of polychlorinated dibenzo-pdioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) by fish 1433

Lopes M.C. see Guilhermino L. 2021

Luijk R. Dorland C. Smit P. Jansen J. and Govers H.A.J. The role of bromine in the de novo synthesis in a model fly ash system 1299

Lum K.R. see Quémerais B. 1943

Lum K.R. see Quémerais B. 947

Luthe C.E. Berry R.M. and Voss R.H. Are chlorinated phenols precursors of bleach plant dioxins? 1883

Maccubbin A.E. see Hoke R.A. 169

Mackay D. see Di Guardo A.

Madrid L. see Morillo E. 2185

Maquire R.J. see Kochany J.

Mahro B. see Eschenbach A. 683

Malbouisson J.F.C. Young T.W.K. and Bark A.W. Disruption of precopula in Gammarus pulex as a result of brief exposure to gammahexachlorocyclohexane

(Lindane) 2011 Mamdapur V.R. see Trivedi S.V. 1791

Mangelsdorf I. see Greim H. 2203

Manninen H. see Ruuskanen J. 1989

Manos Jr C.G. see Kinney R.M. 729

Mansour M. and Feicht E.A. Transformation of chemical contaminants by biotic and abiotic processes in water and soil 323

Maqueda C. see Morillo E. 2185

Marklund S. Wilkström E. Löfvenius G. Fängmark I. and Rappe C. Emissions of polychlorinated compounds in combustion of biofuel 1895

Marsman J.A. see Van der Velde E.G. 693

Marutzky R. see Pohlandt K. 1311 Mastala Z. see V.-Balogh K.

Masunaga S. see Yonezawa

Y. 2179 Matoba Y. Hirota T. Ohnishi J. Murai N. and Matsuo M. An indoor simulation of the behavior of insecticides supplied by an electric vaporizer 435

Matoba Y. Ohnishi J. and

Matsuo M. Indoor simulation of insecticides supplied with an electric vaporizer by the fungacity model 767

Matsueda T. see Ohsaki Y.

Matsumara F. see Blankenship A. 183 Matsuo M. see Matoba Y.

Matsuo M. see Matoba Y. 435

Mattie D.R. see Serve M.P. 1571 Matucha M. see Vvas B.R.M.

Maudlin R.F. see Stephens

D.L. 1741 Mazzucco K. see Bhatia A.

McCrady J.K. Vapor-phase 2,3,7,8-TCDD sorption to plant foliage — a species comparison 207

McDonald S.J. Kennicutt M.C. Sericano J. Wade T.L. Liu H. and Safe S.H. Correlation between bioassay-derived P4501A1 induction activity and chemical analysis of clam (Laternula elliptica) extracts from McMurdo Sound, Antarctica 2237

McDonald G.A. see Serve M.P. 1571 McFadden T. Jr. see

Stephens D.L. 1741 McGill W.B. see Xing B. 145
Meakins N.C. Bubb J.M.
and Lester J.N. The
behaviour of the s-triazine herbicides, atrazine and simazine, during primary and secondary biological

waste water treatment 1611 Mekenyan O.G. Ankley G.T. Veith G.D. and Call D.J. QSARs for photoinduced toxicity: I. Acute lethality of polycyclic aromatic hydrocarbons to Daphnia magna 567

Mellina E. see Kinney R.M. 729

Menezes-Filho J.A. see

Smith S. 825
Migon C. Jourdan E.
Nicolas E. and Gentili B. Effects of reduced leaded fuel consumption on atmospheric lead behaviour 139

Mills E.L. see Kinney R.M.

Mills E.L. see Roseman E.F. 737

Milne P.J. see Riemer D.D. 837

Minero C. Pelizzetti E. Piccinini P. and Vincenti M. Photocatalyzed transformation of nitrobenzene on TiO2 and ZnO 1229

Mishra D. see Yalkowsky S.H. 1657

Morelli E. see Seritti A. 117 Morhain E. see Claveri B.

Morichi Y. see Beppu M.

Morillo E. Maqueda C. Bejarano M. Madrid L. and Undabeytia T. Cu(II)-Glyphosate system: a study of anodic stripping voltammetry and the infleunce on Cu adsorption by montmorillonite 2185 Morita M. see Allinson G.

1369 Mouvet C. see Dousset S.

Mouvet C. see Claveri B.

Moys G.R. see Battersby N.S. 787 Moza P.N. Sukul P. Hustert

K. and Kettrup A. Photooxidation of metalaxyl in aqueous solution in the presence of hydrogen peroxide and titanium dioxide 341

Munier-Lamy C. see Demon M. 453

Münzer B. see Brüggemann R. 863

Münzer B. Brüggemann R. and Halfon E. An algebraic/graphical tool to compare ecosystems with respect to their pollution-II. Comparative regional analysis 873

Murai N. see Matoba Y. 435 Myrdal P. see Yalkowsky S.H. 1657

Myrdal P. see Yalkowsky S.H. 1675

Nakamura K. see Kamiya M. Nakamuro K. see Segawa T. Nannicini L. see Seritti A. 117

Nevalainen T. see Koistinen J. 2139

Nevalainen T. see Hu J. 1069

Nevalainen T. see Koistinen J. 1261

Newman J.W. Vedder J. Jarman W.M. and Chang R.R. A method for the determination of environmental contaminants in living marine mammals using microscale samples of blubber and blood 1795

Nicolas E. see Migon C. 139 Nicoletti I. Perez G. Caponecchi G. Possagno E. Lilla E. and Sparapani C. lonic pathways to 2,3-benzofluoranthene 1733

Nieboer R. see De Jongh J.

Nito S. see Akimoto Y. 1417 Nolting H.-G. see Siebers J.

Nüßlein F. see Leidmann P. 383

Nüßlein F. Wunsch P. Rampp F. and Kettrup A Influence of combustion bed temperature on concentration and leachability of metals in slags from an incinerating

plant 349 Nüßlein F. Freicht E.A. Schulte-Hostede S. and Kettrup A. Proposal on a standardized water risk assessment of toxic substances in soil 219

Oehme M. see Kallenborn R.

Oguri K. see Koga Y. 639 Ohnishi J. see Matoba Y. 767

Ohnishi J. see Matoba Y. 435

Ohsaki Y. and Matsueda T. Levels, features and a source of non-ortho coplanar polychlorinated biphenyl in soil 47

Oksanen J. see Ruuskanen J. 1989

Ollikainen S. see Halonen I.

Olling M. see Derks H.J.G.M.

Opperhuizen A. see Schrap S.M. 931 Oxynos K. Schmitzer J.

Schramm K.-W. and Kettrup A. The German **Environmental Specimen** Bank (GESB): concepts and results of chlorinated hydrocarbons in environmental samples 313

Paasivirta J. see Sinkkonen S. 1279

Paasivirta J. see Koistinen J. 2139

Paasivirta J. see Sinkkonen S. 2049

Paasivirta J. see Koistinen J. 1261

Paetz A. see Greim H. 2203 Pagga U. see Strotmann U.J. 755

Pagnucco C. see Serrazanetti G.P. 1119 Painter H.A. see Weytjens D.

Parlar H. see Frenzen G. 2067

Parlar H. see Hainzl D. 245 Parlar H. see Xu L. 237 Parlar H. see Kallenborn R.

Parsons J.R. see Loonen H. 1433

Pasek R. see Blankenship A. 183

Pastor D. see Solé M. 897 Patel R.C. see Yang Y. 1967 Peichl L. see Wäber M. 1905 Pekari K. see Laitinen J. 197 Pelizzetti E. see Minero C. 1229

Pelizzetti E. see Gonzalez M.C. 2121

Pellinen J. Sorption of high molecular weight chlorolignin on sediment 1773

Perdih A. and Jan J. Formation of polychlorobiphenyls in silicone rubber 2197

Perez G. see Nicoletti I. 1733 Perez G. see de Stefanis A. 1255

Pergantis S.A. see Cullen

W.R. 1009
Petrovic A.M. Young R.A.
Sanchirico C.A. and Lisk D.J. Migration of isazofos nematocide in irrigated turfgrass soils 721

Pettersson C. see Smeds A.

Pfister G. El-Naggar M. and Bahadir M. Evaluation of controlled release molluscicide formulations with improved environmental acceptance

Piccinini P. see Minero C. 1229

Pilidis G. see Lahaniatis E.S. 229

Pohlandt K. and Marutzky R. Concentration and distribution of polychlorinated dibenzo-pdioxins(PCDD) and polychlorinated dibenzofurans (PCDF) in wood ash 1311

Portal J.M. see Demon M.

Porte C. see Solé M. 897 Possagno E. see de Stefanis A. 1255

Possagno E. see Nicoletti I. 1733

Potter C. see Kuehl D.W.

Poziomel E.J. see Steinberg S.M. 1819

Prevot A.B. see Gonzalez M.C. 2121

Quémerals B. Lemieux C. and Lum K.R. Temporal variation of PCB concentrations in the St. Lawrence river (Canada) and four of its tributaries 947

Quémerais B. Lemieux C. and Lum K.R. Distribution and fate of chlorophenols in the St. Lawrence River basin, Canada 1943

Ramamoorthy S. see George L.M. 1871 Rampp F. see Nüßlein F.

Ranalli G. see Falappi D. 1087

Randall A. see Lassen P. 703

Rao S.S. Burnison B.K. Rokosh D.A. and Taylor C.M. Mutagenicity and toxicity assessment of pulp mill effluent 1859

Rao P.S.C. see Cehn C.S.-H. 1385

Rappe C. see Götz R. 63 Rappe C. see Marklund S. 1895

Ravensberg J.C. see Brouwer D.H. 1135

Reddy K.N. and Locke M.A. Relationships between molecular properties and log P and soil sorption (K<sub>∞</sub>) of substituted phenylureas: QSAR models 1929

Reissinger M. see Umlauf G. 1689

Rezek T.M. see Serve M.P. 1571

Riemer D.D. Milne P.J. Farmer C.T. and Zika R.G. Determination of terpene and related compounds in semi-urban air by GC-MSD 837

Rimkus B. see Rimkus G.

Rimkus G. Rimkus B. and Wolf M. Nitro musks in human adipose tissue and

breast milk 421
Rittmeyer C. Kaese P.
Vehlow J. and Vilöhr W. Decomposition of organohalogen compounds in municipal solid waste incineration plants. Part II: co-combustion of CFC containing polyurethane foams 1455

Roch K. see Götz R. 63 Roghair C.J. Buijze A. Yedema E.S.E. and Hermens J.L.M. A QSAR for base-line toxicity to the midge Chironomus riparius 989

Rokosh D.A. see Rao S.S. 1859

Roseman E.F. Mills E.L. Rutzke M. Gutenmann W.H. and D.J. Lisk. Absorption of cadmium from water by North American zebra and quagga mussels (Bivalvia: Dreissenidae) 737 Rotard W. Christmann W.

and Knoth W. PCDD/F in waste water discharges from flue gas scrubbers of waste incinerators and coal operated power plants 2173

Rüdel H. see Grass B. 491 Ruokojärvi P. see Halonen I. 2129

Ruppert G. Bauer R. and Heisler G. UV-O3, UV-H2O2, UV-TiO<sub>2</sub> and the photo-Fenton reaction comparison of advanced oxidation processes for waste-water treatment 1447

Rusling J.F. see Schweizer S. 961

Rutzke M. see Roseman E.F. 737

Rutzke M. see Gutenmann W.H. 725

Rutzke M. see Grubinger V.P. 717

Ruuskanen J. Vartiainen T. Kojo I. Manninen H. Oksanen J. and Frankenhaeuser M. Formation of polychlorinated dibenzo-pdioxins and dibenzofurans in co-combustion of mixed plastics with coal: exploratory principal component analysis 1989 Ruuskanen J. see Halonen I.

Safe S.H. see McDonald S.J. 2237

Safe S.H. see Ahlborg U.G.

Sanchirico C.A. see Petrovic

A.M. 721 Santi H. Bichimaier A. Gruber L. and Stöhrer E. Mass balance of polychlorinated dibenzofurans (PCDFs) and polychlorinated dibenzodioxins (PCDDs) in a recycling paper mill 1633 Sasaki C. see Kamiya M.

1961 Šašek V. see Vyas B.R.M.

Sauer P.J.J. see Kooperman-Esseboom C. 1721 Sayato Y. see Segawa T.

Sbrilli G. see Bacci E. 1165 Schaefer G. see Eschenbach

A. 683 Schäfer H. see Traub-Eberhard U. 501

Schall C. Laturnus F. and Heumann K.G. Biogenic volatile organoiodine and organobromine compounds released from polar macroalgae 1315

Schenk B. see Hund K. 477 Scheunert I. see Schroll R.

Scheunert I. see Sotiriou N.

Schiavon M. see Demon M. 453

Schiavon M. see Dousset S.

Schlatter C. see Ahlborg U.G. 1049

Schmitzer J. see Oxynos K.

Schöler H.F. see Haiber G. 1913

Schön N. see Greim H. 2203 Schramm K.-W. **Environmental impact** assessment (EIA): equilibrium figacity

calculations and worst case

approach 2151
Schramm K.-W. see Oxynos K. 313

Schrap S.M. de Vries P.J. and Opperhuizen A. Experimental problems in determining sorption coefficients of organic chemicals; an example for chlorobenzenes 931

Schroll R. Bierling B. Cao G. Dörfler U. Lahaniati M. Langenbach T. Scheunert I. and Winkler R. Uptake pathways of organic chemicals from soil by agricultural plants 297 Schulte-Hostede S. see

Nüßlein F. 219
Schweizer S. Rusling J.F.
and Huang Q. Electrolytic
dechlorination of DDT in a bicontinuous microemulsion

Scrudato R.J. see Zhang P. 607

Scully F.E. Jr. see Ahel M. 1361

Segawa T. Ishiga H. Ueno H. Nakamuro K. and Sayato Y. Genotoxicity and cytotoxicity of 3-amino-1-methyl-5*H*-pyrido[4,3-*b*]indole (Trp-P-2) 853 **Seinen W.** see De Jongh J.

1581

Seinen W. see de Wolf W. 159

Sericano J. see McDonald S.J. 2237

Seritti A. Morelli E. Nannicini L. and Del Vecchio R. Production of hydrophobic fluorescent organic matter by the

marine diatom Phaeodactylum tricomutum 117

Serrazanetti G.P. Pagnucco C. Conte L.S. and Artusi R. Aliphatic hydrocarbons and linear alkylbenzenes in zooplankton from the Gulf of Trieste 1119 Serve M.P. Bombick D.D.

Clemens J.M. Rezek T.M. McDonald G.A. and Mattie D.R. The metabolism of 4methylheptane in male Fischer 344 rats 1571

Shih S.M. see Chang C.Y. 1217

Shukui H. see Ligiang J. 1749

Siebers J. Gottschild D. and Nolting H.-G. Pesticides in precipitation in Northern Germany 1559

Sijtsma L. see van der Zee M. 1757

Silveira L. see Guilhermino L. 2021

Silverstone M. see Jenssen **B.M.** 3 Simamora P. see Yalkowsky

S.H. 1675 Simamora P. see Yalkowsky S.H. 1657

Sinkkonen S. Vattulainen A. Aittola J.-P. Paasivirta J. Tarhanen J. and Lahtiperä M. Metal reclamation produces sulphur analogues of toxic dioxins and furans 1279

Sinkkonen S. Kolehmainen E. Paasivirta J. Koistinen J. Lahtiperä and Lammi R. Identification and level estimation of chlorinated neutral aromatic sulphur compounds and their alkylated derivatives in pulp mill effluents and sediments

Skaare J.U. see Jenssen **B.M.** 3

Smeds A. Holmbom B. and Pettersson C. Chemical stability of chlorinated components in pulp

bleaching liquors 881
Smit P. see Luijk R. 1299
Smith T.J. Wearne R.H. and
Wallis A.F.A. Preparation of chlorosynringols and chloropyrogallols components of pulp

bleaching effluents 921
Smith T.J. Wearne R.H. and
Wallis A.F.A. Preparation and properties of chloro-3methoxycatechols components of pulp

bleaching effluents 911
Smith S. Furay V.J.
Layiwola P.J. and
Menezes-Filho J.A.
Evaluation of the toxicity and quantitative structure-activity relationships (QSAR) of chlorophenols to the copepodid stage of a marine copepod (Tisbe battaglial) and two species of benthic flatfish, the flounder (Platichthys flesus) and sole (Solea solea) 825
Soares A.M.V.M. see

Guilhermino L. 2021

Söderström M. Wachtmeister and Förlin L. Analysis of chlorophenolics from bleach kraft mill effluents (BKME) in bile of perch (Perca fluviatilis) from the Baltic Sea and development of an analytical procedure also measuring chlorocatechols 1701

Solari P. and Dierickx P.J. Correlation between fish lethality data and the cytoxicity to cultured fish cells of lipophilic solvents emulsified by ultrasonication 1495

Solé M. Porte C. Pastor D. and Albaigés J. Long-term trends of polychlorinated biphenyls and organochlorinated pesticides in mussels from the Western Mediterranean coast 897

Sorlini C. see Falappi D. 1087

Sotiriou N. and Scheunert I. Longterm experiments on the fate of <sup>15</sup>N urea in soil/plant-systems under outdoor conditions 333

Sparapani C. see Nicoletti I. Stan H.-J. see Kirsch N.H.

131

Steinberg S.M. Poziomek E.J. and Engelmann W.H. A review of applications of

luminescence to monitoring of chemical contaminants in the environment 1819

Steinberg C.E.W. Geyer H.J. and Kettrup A.A.F. Evaluation of xenobiotic effects by ecological techniques 357
Steindl H. see Zsolnay A.

Stephens D.L. McFadden T. Jr. Heath O.D. and Maudlin R.F. The effect of sonication on the recovery of polycyclic aromatic hydrocarbons from coal stack ash surfaces 1741

Stöhrer E. see Santi H. 1633 Stokes N.J. Tabner B.J. and Hewitt C.N. The determination of hydroxyl radical concentrations in environmental chambers using electron spin resonance 999

Stoltenkamp J. see Struijs J.

Stratton G.W. see Wall A.J.

Stropp G. see Greim H. 2203 Strotmann U.J. Egisäer H. and Pagga U. Development and evaluation of a growth inhibition test with sewage bacteria for assessing bacterial toxicity of chemical compounds 755

Struijs J. and Stoltenkamp J. Testing surfactants for ultimate biodegradability 1503

Subbaraman A.S. see Trivedi S.V. 1791 Sukul P. see Moza P.N. 341 Sun T. see Yediler A. 375

Tabner B.J. see Stokes N.J.

Tan G.B. see van der Zee M. 1757

Tarhanen J. see Sinkkonen S. 1279

Tarhanen J. see Halonen I. 2129

Taylor C.M. see Rao S.S. 1859

Taylor K.E. see Huixian Z.

Terry R.E. see Li C. 1401 Theelen R.M.C. and Liem A.K.D. Exposure to 2,3,7,8chlorine substituted dioxins, furans and planar PCBs

from food by Dutch Turks: relevance of mutton 675 Thumm W. see Freitag D. 253

Tissari J. see Kankaanpää

H. 99 Tobil F. see Bhatia A. 1525 Tournois H. see van der Zee M. 1757

Toyo'oka T. see Hanioka N. 1589

Traub-Eberhard U. Kördel W. and Klein W. Pesticide movement into subsurface drains on a loamy silt soil

Traub-Eberhard U. Schäfer H. and Debus R. New experimental approach to aquatic microcosm systems

Trivedi S.V. Subbaraman
A.S. and Mamdapur V.R.
A brief synthesis of natural antifeedant, 1-(2,4,6trimethoxyphenyl)but-2(E)-en-1-one 1791

Tsuda M. see Koga Y. 639 Tuinstra L.G.M.Th. see Kooperman-Esseboom C. 1721

Tuppurainen K. see Halonen 1. 2129

Ueno H. see Segawa T. 853 Ueoka M. see Allinson G. Umlauf G. Hauk H. and Rissinger M. The distribution of semicolatile organic compounds in conifer needles following gas phase contamination 1689

Undabeytia T. see Morillo E.

Urushigawa Y. see Yonezawa Y. 2179

V.-Balogh K. and Mastala Z.
The influence of size and glochidia bearing upon the heavy metal accumulation in gills of Anodonta

piscinalis (Nilss.) 1539
van der Zee M. Sijtsma L.
Tan G.B. Tournois H. and
de Wit D. Assessment of biodegradation of water insoluble polymeric materials in aerobic and anaerobic aquatic environments 1757 Van den Berg M. see De

Jongh J. 1581 Van der Paauw C.G. see Kooperman-Esseboom C.

Van der Velde E.G. Marsman J.A. de Jong A.P.J.M. Hoogerbrugge R. and Liem A.K.D. Analysis and occurrence of toxic planar PCBs, PCDDs and PCDFs in milk by use of carbosphere activated carbon 693

Van Ginneken I. see Weytjens D. 801 Van Hemmen J.J. see Brouwer D.H. 1135 Vartiainen T. see Assmuth T.

Vartiainen T. see Ruuskanen J. 1989 Vartiainen M. see Kamens

R.M. 1623 Vattulainen A. see

Sinkkonen S. 1279 Vedder J. see Newman J.W. 1795

Vehlow J. see Rittmeyer C. 1455

Veith G.D. see Mekenyan O.G. 567 Vetter W. see Kallenborn R.

Vilöhr W. see Rittmeyer C. 1455

Vincenti M. see Minero C. 1229

Viswanathan R. Earthworms and assessment of ecological impact of soil xenobiotics 413

Vogel R. see Greim H. 2203 Vongraven D. see Jenssen **B.M.** 3

Voss R.H. see Luthe C.E. 1883

Vyas B.R.M. Šašek V. Matucha M. and Bubner M. Degradation of 3,3',4,4'tetrachlorobiphenyl by selected white rot fungi

Wäber M. Werner H. and Peichl L. Effect related ozone monitoring: comparison of reaction indicator tobacco BEL W3 and deposition collector indigo paper 1905 Wachtmeister C.A. see

Söderström M. 1701

Wade T.L. see McDonald S.J. 2237

Wall A.J. and Stratton G.W. Arsenic effects on the bacterial degradation of pentachlorophenol 559

Wallis A.F.A. see Smith T.J.

Wallis A.F.A. see Smith T.J.

Wang M.-J. and Jones K.C. Behaviour and fate of chlorobenzenes (CBs) introduced into soil-plant systems by sewage sludge application: a review 1325

Wang M.-J. and Jones K.C. The chlorobenzene content of comtemporary U.K. sewage sludges 1201

Ward A.J.I. see Yang Y. 1967

Warwick P. see Lassen P. 703

Wærn F. see Ahlborg U.G.

Wearne R.H. see Smith T.J. 921

Wearne R.H. see Smith T.J.

Weber C. see Greim H. 2203 Weisglas-Kuperus N. see Kooperman-Esseboom C. 1721

Wenclawiak B.W. see Grass B. 491

Werk X. see Bhatia A. 1525 Werner H. see Wäber M.

Weytjens D. Van Ginneken I. and Painter H.A. The recovery of carbon dioxide in the Sturm test for ready biodegradability 801 Wherhan M. see Zsolnay A.

Wienhold B.J. and Gish T.J. Chemical properties influencing rate of release of starch encapsulated herbicides: implications for modifying environmental fate 1035

Wilkström E. see Marklund S. 1895

Williams T.P. Bubb J.M. and Lester J.N. The occurrence and distribution of trace

metals in halophytes 1189 Williams W.A. Microbial reductive dechlorination of polychlorinated biphenyls in heat treated and

bromoethanesulfonate treated anaerobic sediment slurries 2269

Winkler R. see Schroll R.

Wolf M. see Rimkus G. 421 Wunsch P. see Nüßlein F. 349

Xing B. McGill W.B. and Dudas M.J. Sorption of α-naphthol onto organic sorbents varying in polarity

and aromaticity 145
Xu H. Lesage S. and Brown S. Petroporphyrins as chemical indicators of soil contamination by crude oil 1599

Xu L. Hainzl D. Burhenne J. and Parlar H. HRGC-ECD and HRGC-NICI SIM quantification of Toxaphene residues in selected marine organism by environmentally relevant chlorobornanes as standard

Yalkowsky S.H. Myrdal P. Dannenfelser R.-M. and Simamora P. Upper II: calculation of physical properties of the chlorobenzenes 1675

Yalkowsky S.H.
Dannenfelser R.-M. Myrdal
P. Simamora P. and
Mishra D. Unified physical

property estimation relationships (upper) 1657 Yamada H. see Koga Y. 639 Yang G. see Blankenship A. 183

Yang Y. Donegan S. Patel R.C. and Ward A.J.I. Photochemical degradation of a toxic organophosphorous analog (PMSF) in microemulsion media 1967

Yao Y. see Kamens R.M. 1623

Yedema E.S.E. see de Wolf W. 159

Yedema E.S.E. see Roghair C.J. 989

Yediler A. Grill P. Sun T. and Kettrup A. Fate of heavy metals in a land treatment system irrigated with municipal wastewater 375

Yonezawa Y. Fukui M. Masunaga S. and Urushigawa Y. Dechlorination of 1,2,4trichlorobenzene in the sediment of Ise Bay 2179 Yoshimura H. see Koga Y. 639 Younes M. see Ahlborg U.G. 1049

Young T.W.K. see Malbouisson J.F.C. 2011 Young R.A. see Petrovic A.M. 72 Yrjänheikki E. see Ahlborg Ú.G. 1049

Zabik M.J. see Hoke R.A. Zanin G. see Di Guardo A.

Zelles L. and Bai Q.Y. Fatty acid patterns of phospholipids and lipopolysaccharides in environmental samples 391

Zepp R.G. see Dieckmann M.S. 1021 Zhang P. Scrudato R.J. and Germano G. Solarcatalytic inactivation of Escherichia coli in aqueous solutions

using TiO<sub>2</sub> as catalyst 607 **Zhi-Hua F.** see Kamens R.M. 1623

Ziegler-Skylakakis K. see Greim H. 2203 Zier B. see Lenoir D. 1921 Zika R.G. see Riemer D.D. 837

Zitko V. TLC detection of brominated flame retardants in styrofoam 1211

Zsolnay A. Wherhan M. and Steindl H. A field based study on the effect of dissolved organic matter on the transport of terbuthylazine 533

